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ABSTRACT

The Knox County extended school year (ESY) program emphasized K-12 curriculum improvement. During the trial of the ESY scheduling and curriculum changes, there was an increase in English and social studies scores at the high school, an increase at all levels in the extent to which students perceived that individualization of instruction was taking place, no change in average daily attendance (even during the summer quinmester), a decline in the high school dropout rate, an increase in the use of library references, and an improvement in an already favorable attitude toward school at all levels. It was not possible to isolate the effects of ESY in these areas from the effects of other factors. However, the data indicate that ESY was certainly not a negative influence, and in some cases the effect appeared to be quite positive. Parents at all levels and many staff and administrators responded positively to the ESY changes. The planned three-year project was cut short after two years because school board members did not feel the extra expenditures associated with the summer quinmesters were justified for such a small proportion of the students (13 percent one summer, 11 the next). (Author/IRT)

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EVALUATION OF THE KNOX COUNTY EXTENDED SCHOOL YEAR PROGRAM FINAL REPORT

Prepared for

KNOX COUNTY SCHOOLS
Knoxville, Tennessee

BEST COPY AVAILABLE

December 1976

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ABSTRACT

Summer as the time for vacation from school was too important a tradition to permit more than 13 percent of the students enrolled at five Knox County (Tennessee) schools to volunteer for one of the two summer quinmesters offered as part of a trial of the quinmester plan for extending the school year. The planned three-year ESY project was cut short after two years because school board members did not feel the extra expenditures associated with the summer quinmester were justified for such a small proportion of the students in the two participating primary schools, two middle schools and one high school.

The ESY Program emphasized K-12 curriculum improvement. During the trial of the ESY scheduling and curriculum changes there was an increase in ACT English and social studies scores at the high school, an increase at all levels in the extent to which students perceived that individualization of instruction was taking place, no change in average daily attendance (even during the summer quinmesters), a decline in the high school dropout rate, an increase in the use of library references, and an improvement in an already favorable attitude toward school at all levels. It was not possible to isolate the effects of ESY in these areas from the effects of other factors. However, the data indicate that ESY was certainly not a negative influence, and in some cases the effect appeared to be quite positive.

ESY teachers and administrators were questioned periodically to determine the nature of their attitudes toward ESY. Many favored having the opportunity to work year-round if they wished, and felt the new curriculum was a substantial improvement over the curriculum used in previous years. Staff turnover, including resignations and requests for transfer to other schools, declined during the ESY trial. Certainly this indicator revealed no significant dissatisfaction with ESY on the part of the professional staff.

Parents at all levels responded positively to the ESY changes, and 70 percent favored reinstating year-round operation 'in a few years' if facilities under construction failed to provide permanent relief from overcrowding at the five participating schools.

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SECTION I.

THE EXTENDED SCHOOL YEAR PROJECT AND THE PLAN FOR ITS EVALUATION

A. INTRODUCTION

In June 1974 the Knox County (Tennessee) school system initiated a voluntary quinmester plan* for extending the school year. Year-round operation began in five schools (two primary, two middle, and one high school) in West Knox County's Farragut High School attendance zone. An E.S.E.A. Title III project grant provided partial funding for the Extended School Year Program (ESY).

The ESY project was undertaken primarily for the purpose of effecting an extensive revamping of curriculum in the participating schools. It was hoped that the quinmester schedule would provide a vehicle for rethinking time and subject matter priorities, and for restructuring the curriculum, to achieve a more relevant and viable content organization with a built-in monitoring mechanism that would allow the system-level administration to view the total school program and evaluate its effectiveness. Since West Knox County at the time the program began was experiencing rapid growth of its school-age population (10-15% per year) due to in-migration of families with young children, ESY was initiated in that part of the County to provide some relief from overcrowding in the schools. Other secondary reasons for the extended school year trial included anticipated efficiencies in utilization of professional staff and physical facilities.

Between January 1974, when E.S.E.A. funding began, and June 1976, when ESY was terminated, substantial progress was made in developing a new curriculum organization for grades K-12 at the five ESY schools. Subject-area committees of teachers and supervisors developed broad goals for their areas, then more specific organizational level objectives, and finally series of curriculum

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* The school year was divided into five nine-week segments called quinmesters. Each student was given an opportunity to choose which four of the five quins he/she would attend.

packages or modules each of which was suitable for presentation during a 45-day quinmester. The modules were designed to permit students to leave school for a quinmester, then resume any subject without penalty. They also provided for formal evaluation of student progress at the end of each 45-day period. Administrators hoped that a successful trial of these curriculum materials at the ESY schools would result in the eventual adoption of the materials at all Knox County schools.

Knox County administrators were pleased with the first summer's (i.e., 1974) enrollment of almost 13 percent of the total ESY school enrollment because that appeared to be an excellent start toward the goal of 25 percent which they hoped to achieve in future years. If 25 percent of the students attended the Summer Quinmester, 5 or 6 percent might be expected to vacation during each of the remaining four quins, thus providing some relief from overcrowding. However, the second Summer Quinmester (1975) attracted fewer students -- approximately 11 percent of the total enrollment -- than did the 1974 Summer Quin. Thus overcrowding was not noticeably lessened during the regular school year, and no staff reductions could be made during the other four quins as a cost-saving measure.

Knox County administrators were faced with the task of justifying an expenditure of over $200,000 for staff, transportation, and maintenance for a summer program which was not producing offsetting economies during the regular academic year. This was at a time when school budgets throughout Tennessee were being scrutinized to take advantage of every conceivable cost-cutting strategy.

During the same time frame a new high school and a substantial addition to one of the primary schools were begun, and it appeared that some of the overcrowding in the West Knox County schools would be alleviated by Fall 1976.

Lack of summer participation coupled with the prospect of a reduction in overcrowding through new physical facilities forced the Knox County school

administration to recommend that the 1976 Summer Quinmester be dropped from the planned ESY trial. In March 1976 the Knox County school board accepted this recommendation.

While dwindling State and County revenues in the face of inflation cut short a 1974-76 trial of the year-round operation of five West Knox County schools, the evaluators found much about the ESY project to commend. All school administrators, and substantial majorities of teachers, students, parents, and a sample of registered voters in the Farragut area, were enthusiastic about the opportunity to utilize their schools for twelve months instead of nine. More than 90 percent of the students attending the Summer Quinmesters liked having the chance to be in school during the summer, and were pleased with their academic experiences. Questionnaire responses indicated that the opportunity to attend school during the summer fulfilled a need for some students and their parents. The Summer Quin also met the need of some faculty for year-round employment. Small summer classes provided an opportunity for individualization of instruction that could not be duplicated during the regular school year.

This evaluation report, then, does not focus primarily on programmatic failures which led to discontinuation of ESY, but rather attempts to provide a balanced treatment -- both pro and con -- of salient program components.

B. THE SETTING FOR THE KNOX COUNTY EXTENDED SCHOOL YEAR PROGRAM

West Knox County

The Farragut High School attendance zone, which includes the five schools trying out the Extended School Year Program, is located in West Knox County, an area which is presently growing faster than any other part of the County. The Knox County Metropolitan Planning Commission (MPC) has reported that between 1960 and 1970 its West Knox Study Area, which includes the Farragut High School attendance zone, experienced a growth rate of 80.1 percent and this accounted for 77 percent of the total population gain for Knox County (MPC, "West Knox Data Base"). According to the MPC the West Knox Study Area will continue to have a high growth rate because the availability of prime developable land makes possible continuing increases in retail-commercial-industrial activity in the area, and because significant improvements in existing public services and facilities have been programmed for the area. The Study Area is expected to grow at the rate of 5 percent or more each year, compared with an estimated rate of 1.8 percent for Knox County as a whole.

In 1970 the average number of persons per household in the census tracts which included the Farragut High School attendance zone was 3.44, higher than the 3.01 persons per household in all Knox County, 3.15 in Tennessee, and 3.17 in the United States as a whole. The prevalence of single family dwellings and relative scarcity of high density housing in the area produced unusually high percentages of young adults (25-44) and children (14 and under). The Knox County School System reported a net enrollment growth of 167% between 1964 and 1974 in the five schools selected for the ESY trial. These facts explain the concern of the Knox County School administration with alternatives, such as the extended school year, designed to meet the educational needs of a mushrooming school age population.

Further demographic information may serve to characterize more fully the area in which the Extended School Year Program was tried. In 1970 the average family in West Knox County had not only more children, but also more education and a considerably higher income than the average family in Knox County, in Tennessee, or in the nation. The median for years of schooling in 1970 was 12.8 in West Knox County, 12.0 in Knox County as a whole, 10.8 in Tennessee, and 12.1 in the U.S. In 1970 the median family income in the West Knox Study Area was $11,433. This may be compared with $8,195 for Knox County, $7,447 for Tennessee, and $9,310 for the nation.

In 1970 the West Knox Study Area had a much smaller proportion of families with incomes of less than $10,000 than did Knox County as a whole. The 1970 census showed that only 1 percent of West Knox County residents were non-white. This percentage for Knox County was 8.4 and for the U.S. 11 (MPC, "West Knox Plan"). In 1970 most of the West Knox County residents who were employed worked within the Knoxville city limits: 65% in Knoxville, 13% in Knox County (outside the city limits), 9% in Anderson County, and 1% in Blount County. Principal sources of employment in these areas include wholesale and retail trade; federal, state, and local government; services; manufacturing of such durable goods as primary and fabricated metals, electrical and transportation equipment and scientific and control instruments; and manufacturing of such non-durable goods as chemicals, paper, products of petroleum, coal and leather; apparel; food products; and textiles (Tennessee Department of Employment Security Statistics, 1975).

Physical Facilities at the Five ESY Schools

Physical facilities at the five schools involved in the Extended School Year Program (ESY) were relatively modern. Farragut Middle School was housed in a building constructed in 1948, with additions in 1955 and 1961. According to State standards this school was located on a site that was too small for the number of students enrolled, but it had a cafeteria, a library and a multi-purpose area for use as auditorium/gymnasium. Farragut High School was constructed in 1958 with an addition in 1965. The high school site size was considered adequate and the building had cafeteria, library, gymnasium, and auditorium facilities. Cedar Bluff Middle School was built in 1965 on a site of adequate size, and had facilities for library and gymnasium but not for cafeteria or auditorium. Cedar Bluff Primary School opened in 1971 on a site that was nearly twice the size of the State minimum for a primary school with its enrollment. CBP had a cafeteria, library, auditorium, and gymnasium. Farragut Primary School opened in 1972. The site size was adequate but the school had no auxiliary facilities for cafeteria, library, auditorium or gymnasium.

At the time of the ESY trial several of the schools involved were operating with more than the number of students for which the facilities had been designed. A number of temporary classrooms had been added to existing permanent facilities to accommodate the overflow of students, but the enrollment at Farragut High School was almost twice the capacity in permanent standard classrooms. The enrollment of almost 1300 at Cedar Bluff Middle School exceeded capacity by approximately 200 students; Farragut Middle School was also overcorwded. Cedar Bluff and Farragut Primary schools operated in the fall of 1974 at better than 90 percent of capacity.

Organization of Instruction in the ESY Schools

The Primary Schools

Instructional organization plans for the period of the ESY trial were provided by the principals of Cedar Bluff Primary (CBP) and Farragut Primary (FP) schools. CBP housed students in grades K-4; FP included grades K-3.

Double shift kindergartens at the two schools utilized flexible scheduling and included small group academic instruction; individual and group activities in art, music, language arts, and mathematics; and outside play.

For grades 1-4 at CBP and 1-3 at FP flexible scheduling was employed, with the largest block of time (approximately 2 hours) reserved for language arts, i.e., reading, writing, spelling, and some English grammer. Mathematics was scheduled for approximately one hour each day. Blocks of time for social studies, science, and health and safety were part of each week's schedule. At least once a week each student received instruction in art and music from specialists in these areas, but art and music activities were woven into the curriculum by other teachers as well. Physical education, whether taught by a specialist or by classroom teachers, was a part of each day's schedule.

Both primary schools offered an individualized program with continuous progress for each student. Students were divided into multi-aged groups based on level of achievement in reading, mathematics, etc. Use of the Developmental Learning Program in Language Arts and the Mathematics Continuum facilitated individualization of instruction in these areas; records of progress in acquiring these skills were maintained for each child. Content in science, social studies, and health and safety was given direction by the ESY curriculum modules.

Teams of teachers cooperatively planned and implemented the instructional program at both primary schools. At CBP teams consisted of four teachers, with

each member assigned to a subject area (the teacher served also as a member of a staff-wide committee in her subject). A team chairman assumed administrative responsibilities, and all team chairmen met together periodically as a staff advisory committee.

Prior to the beginning of ESY, Farragut Primary School utilized multi-aged teams in a non-graded approach. To facilitate use of the ESY curriculum modules, all teams except one 2-3 combination were graded. There were ten teams of two teachers each in grades 1-3. Two first grade teams interteamed for afternoon activities, and all first grade teams interteamed for mathematics instruction.

Both schools utilized a variety of personnel to assist in the instructional program: student peers when appropriate, aides, student teachers, mothers of pupils, and resource persons from the community--especially from the University of Tennessee. At FP a school aide worked with each team one day a week, and an aide from U.T. helped two hours per week. Mothers were utilized as tutors, and in the library and teachers' workroom to provide materials for further individualization. Supplemental learning materials included records, cassette tapes, films and film strips, charts, maps, globes, etc. Learning centers were used extensively.

Innovations being tried by some teachers in the primary schools included performance contracting, use of praise in behavioral modification, language experience for non-readers or beginning readers, independent study for bright students, and extensive use of learning centers. Both schools used field trips as a means of enriching educational experience.

The Middle Schools

Information on instructional programming for 1974-76 at Cedar Bluff Middle School (CBM) and Farragut Middle School (FM) was prepared by the Knox County

Middle School Supervisor. Grades 5-8 were housed at CBM; while FM contained grades 4-8.

Both teachers and students had opportunities for flexibility in planning the middle school schedule. Groups of students were assigned to 3- and 4-teacher teams and each team divided the school day into blocks of time for language arts, mathematics, social studies, and science. The master schedule for the school provided one or more large blocks of time per day, as well as scheduling for art, music, physical education, and lunch. Frequency of classes in art, music, and physical education varied depending on class size and number of specialists available in these areas, but each middle school youngster had at least 40 minutes of instruction per week in art and music, and at least an hour of physical education (in two or more sessions) each week.

Heterogeneous grouping of students was utilized in the team structure at both middle schools. Four-teacher teams were responsible for approximately 140 students each; three-teacher teams had somewhat smaller groups. Non-grading was attempted by integrating in each team approximately equal numbers of students in two age or grade levels. At CBM teams consisted of combinations of fifth and sixth graders or of seventh and eighth graders. A FM the multi-aged teams contained grades 4 and 5 and grades 7 and 8. Here the sixth grade teams functioned independently due to size of the school and available teaching spaces.

Direction for instruction in mathematics and reading at the middle schools was provided by skills continua. A check list was available for recording the progress of each student toward the achievement of sequential skills in these areas. ISCS science was utilized in grades 7-8 at FM. A language arts curriculum entitled INTERACTION was being tried by all teams in grades 4-5 and 6 at FM and by two teams in grades 5-6 at CBM. Both middle schools utilized several textbooks in every subject area, supplemented by additional resource materials.

With just two exceptions, every teacher of language arts, mathematics, social studies, and science at CBM and FM was a member of a team. This structure provided the middle school student with the security of a self-contained classroom and the competency of subject matter specialists.

Farragut High School

Information on instructional programming at Farragut High School (FH) for 1974-76 was developed by the Director of Academic Affairs at the school. Scheduling at FH, which contained grades 9-12, was based on division of the school day into six 55-minute periods. The fourth period was actually a double period with half of the time alloted for lunch, the other half for a class. (In a few cases this enabled students to schedule a total of seven classes in a day.) Some students were allowed to contract on an individual basis for classwork done outside the regular classroom setting, but still during one of the regular scheduled school periods.

Some degree of homogeneous grouping of students was utilized at FH. At each grade level there were "basic" and "standard" groups. Students in the basic group appeared to lack the basic skills necessary for pursuit of the academic curriculum at the standard level. Students in the standard group were expected to fulfill academic expectations at an "average" level or above.

Most classes at FH were conducted on a grade level basis, but a few classes contained students classified at two or more grade levels. The latter included social studies, math, science, business, art, music, home economics, foreign languages, and the 11th-12th grade English elective program.

FH utilized a departmental plan of organization, with very little team teaching. All classes met for a single period five times a week, with the exception of Vocational Office Education which consisted of a three-period block.

Prior to the initiation of ESY there had been no school-wide emphasis on attempts to individualize instruction at FH. However, placement of students in "basic" and "standard" groups was aimed at improving the match between student capabilities and staff expectations. Some teachers had tried to individualize learning opportunities in their own classes, and a few students had contracted for a course of study on an individual basis.

A major goal of the ESY curriculum was individualization, and the new curriculum modules contained provisions for varying learning activities for students achieving at different levels. During the first year of ESY more than two-thirds of the FH faculty reported that they were utilizing the ESY modules, so to the extent that the modules provided adequately for differential learning experiences, steps toward the goal of individualization were initiated at the high school as a result of the project.

The use of field trips, resource persons from the community, and audio-visual equipment to enrich the classroom experience at FH was encouraged by administrators, but left entirely to the discretion of each teacher. The school had a supply of audiovisual equipment, but no attempt had been made to plan a comprehensive aduiovisual program or service.

Some experimentation with the application of various learning theories in the classroom had occurred on an individual teacner basis at FH. During the 1971 school year a course for college credit was offered at the school on the subject of behavioral modification and learning styles.

Some Characteristics of Teachers and Administrators at ESY Schools

Two of the five principals of ESY schools were women. In 1974 the median age of the five was 47. All held master's degrees; two had taken at least 45 hours of course work beyond the master's.

In the fall of 1974 there were 42 teachers at Cedar Bluff Primary School. All were female, all were white. The median teacher age was 29.5; all held bachelor's degrees, three held master's degrees.

There were 28 teachers at Farragut Primary in the fall of 1974. All were white; one was male. The median age of these teachers was 26. All teachers, with one exception, held bachelor's degrees; three had obtained master's degrees.

At Cedar Bluff Middle School as of fall 1974 there were 44 teachers, one-quarter (or 11) of whom were male. With one exception, all were white; the median age was 28.5. All CBM teachers held bachelor's begrees; 14 (32 percent) held master's degrees.

The Farragut Middle School faculty in the fall of 1974 consisted of 36 teachers, seven of whom were men. All but one were white; the median age was 30.5. All but one teacher had obtained bachelor's degrees; two held master's degrees.

In the fall of 1974 Farragut High School's faculty consisted of 60 teachers, 26 (or 43 percent) of whom were men. All were white; the median teacher age was 30. All held bachelor's degrees; 40 percent (24) had acquired master's degrees.

Years of professional experience for teachers in the ESY schools ranged from less than one to 44, with the median at 5.2 years. More teachers had been teaching for two years than for any other length of time. The median number of years in present position reported by ESY teachers in 1974 was 3.5.

The ESY Students

Since the adults in West Knox County, including parents of ESY students, were better educated than adults in Tennessee, even adults in the nation, one might expect that students in the ESY schools would exceed national norms for intelligence and achievement. This expectation was confirmed by scores on the

Otis-Lennon Mental Ability Test given annually to third, fifth, and eighth graders; and by scores on the Metropolitan Achievement Text for the same youngsters. During the three years prior to ESY mean IQ expressed as a percentile for the two primary and two middle schools ranged from 50 at one of the middle schools to 80 at one of the primary schools with most of the means in the 60s. During the same period reading achievement, as measured by the 'Total Reading' score on the Metropolitan, ranged from a mean percentile score of 43 at one of the middle schools to 75 at one of the primary schools (most of the means during the period were in the mid-to high 50s). The 'Total Math' mean percentile scores for the period ranged from 35 at one of the middle schools to 71 at one of the primary schools, with most of the means clustered about 50.

No intelligence or achievement testing was done at Farragut High School during the three years prior to initiation of the ESY Program. However, in 1970 Farragut's evaluation report for the Southern Association of Colleges and Schools included a table labeled 'Student Ability' which showed that 50 percent of the current student body possessed IQs of 109 or higher, and just 15 percent had IQs of 91 or below. Typically, more than two-thirds of FHS graduates sought further education -- most at four-year colleges and universities. Those who were employed upon graduation were most likely to go into the primary industries of the Knoxville Metropolitan area: retail and wholesale trade; government; services; manufacturing of nondurable goods such as chemicals, paper, apparel, food products, and textiles; or manufacturing of durable goods such as primary metals, fabricated metals, electrical and transportation equipment, and scientific and control instruments.

C. RELEVANT FINDINGS FROM EVALUATIONS OF OTHER EXTENDED SCHOOL YEAR PROJECTS

Introduction

The concept of year-round education certainly is not new; some schools were operating on a year-round schedule at the turn of the century. One of the longest running year-round programs was conducted in Aliquippa, Pennsylvania, form 1928 to 1938. It was implemented to relieve overcrowding and was abandoned when adequate space became available again. A five-year experiment took place in Nashville, Tennessee at about the same time.

By the late 1950s the concept of year-round education began to appear in the literature with some frequency. The post-war baby boom had filled many schools to capacity, and there was in progress a steady shift away from the agrarian economy which had dictated a long summer vacation. By 1966 the state departments of education in California, Florida, and New York had established offices or initiated studies of year-round education. By 1974 there were at least seventy-five operational projects in thirty-four states. The National Council on Year-Round Education was established, and at the time of its eighth annual national seminar in 1976 there were almost 350,000 students attending 535 schools in 109 districts on some sort of year-round plan (Univer, 1976).

Despite the proliferation of year-round programs of all types in the past two decades, few have operated long enough, or had the opportunities, to evaluate carefully their success in realizing program objectives. Few have made conclusive assessments of their impact upon academic achievement, financial costs, or attitudes of students, parents, or staff.

In its original form this section was prepared by Linda Higginbotham. Later it was updated by the evaluation director.

As school administrators and school board members across the country consider year-round operation of their school systems, several crucial issues or concerns always seem to emerge as topics for debate. These concerns include:

1) Will student academic achievement benefit or suffer?
2) What will year-round operation cost? Can it save tax dollars?
3) What are the attitudes of the school community (i.e., teachers and administrators, students, parents, and voters) toward the implementation of year-round school programs? Will the community support year-round operation?

Reportedly, interest in year-round education has been stimulated by needs both for curriculum reforms and for alternatives to costly school construction needed as a result of increasing student populations. Feasiblity studies conducted by local school districts and state departments of education cite the following rationales or advantages for year-round operation (Nygaard, 1974):

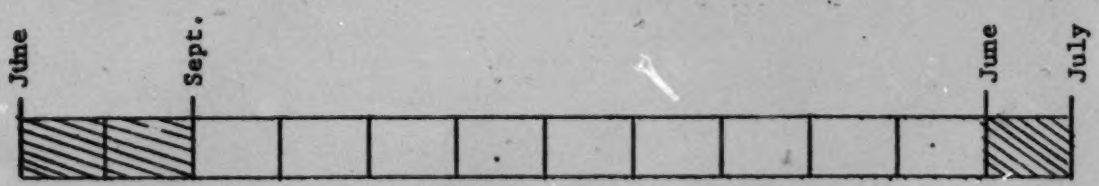
1. Schools that operate on a year-round basis can utilize facilities and resources more effectively and also reorganize the curriculum, thereby increasing the educational opportunities for students.
2. Overcrowding can be alleviated or avoided without the expensive construction of new schools. School districts that are fairly stable in population can discontinue use of outmoded facilities through more effective use of other school buildings.
3. Boredom and extensive learning loss over the long summer vacation can be avoided through the scheduling of shorter vacation spans.
4. Teachers can have the opportunity to practice their profession during the summer, thereby increasing their annual salary; or to pursue non-school work in business, industrial, or professional areas for short periods of time other than during the summer.
5. Shorter terms and courses can provide more variety in subject matter.
6. The shorter course is a refinement toward continuous progress in an ungraded class. Faster learners can continue through courses at their own pace. Slower learners will have more frequent opportunity for remediation; students who fail a course(s) are only 45 days, a quarter, a quinmester, etc. behind, not a full year.
7. Students can have the opportunity to attend school year-round for acceleration, remediation, or part-time employment.

School districts may have any combination of these or other objectives in mind when they choose to operate on a year-round basis. Year-round education

is a general concept, and its greatest strength probably lies in its flexibility and potential to meet various needs through 50 or more different implementation plans.

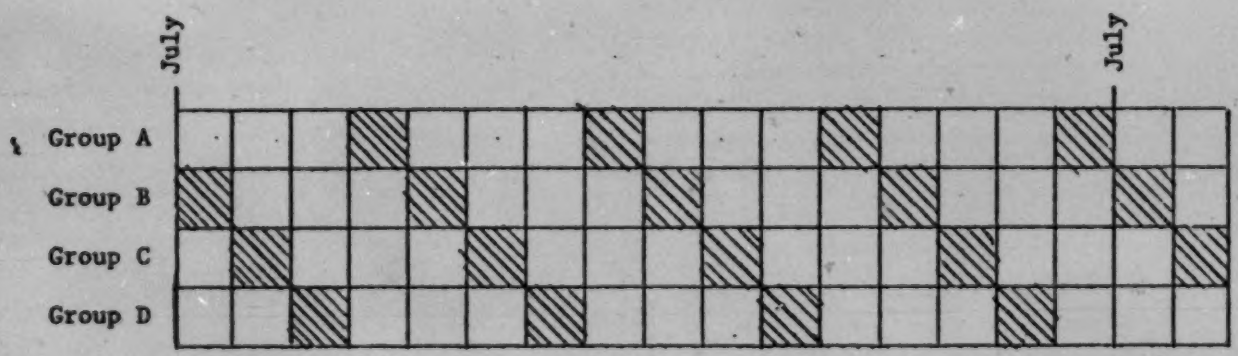
Three major staggered attendance plans -- 45-15, four-quarter, and quinmester -- are most frequently implemented by school systems attempting to efficiently utilize plant facilities, avoid construction costs, accommodate increasing student populations, and increase educational opportunities for students. Diagrams and brief explanations of the varying student attendance patterns involved in the plans are provided below because the most thorough research studies to date have been conducted by school systems operating under one of these three plans.

FIGURE I.1 - Traditional School Year



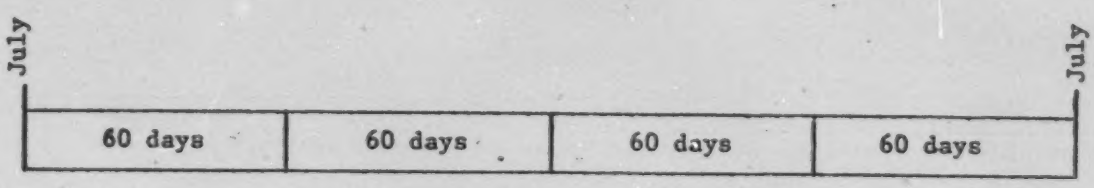
All students are in attendance the same 170-180 days between September and June and all have the common summer vacation between June and September.

FIGURE I.2 - 45-15 School Year



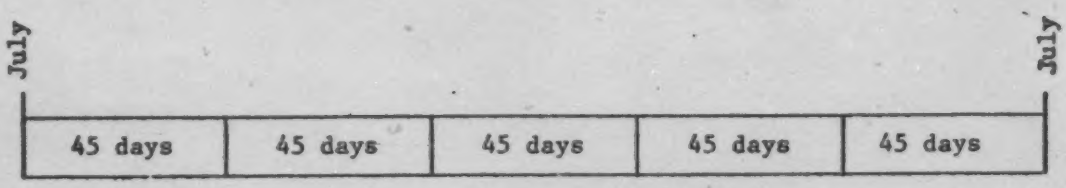
The student body is divided into 4 equal groups. Each block in Figure I.2 represents 15 days, thus the students attend school 45 days then have a 15 day vacation. One-fourth of the students are always on vacation, if the attendance plan is mandated. In addition to the advantages of the year-round programs listed previously, the 45-15 plan operating under a mandated rotating schedule makes it possible for three schools to accommodate as many students as would four schools under a traditional plan (McGraw, National Education Association (NEA), 1974). Thus a 33 percent facilities savings could result (Rice, Olsen, Parks and Parks, 1975, p. 4). Also the curriculum is typically redesigned so that instruction is flexibly packaged in 45-day segments. This plan appears to be most popular with elementary schools, and the most widely implemented of the various year-round programs.

FIGURE I.3 - Four Quarter School Year



Students attend school 3 of the 4 quarters. One-fourth of the students are always on vacation, if mandated. Some additional advantages of the four quarter plan (which is most popular at the secondary level) if mandated include: it provides four commencements each year, distributing graduates in the job market more evenly; it enables high schools to offer beginning and more advanced courses each quarter, as many colleges do, due to curriculum change; and it enables students to begin, interrupt, or complete their studies at any time (Punke, NEA, 1974).

FIGURE I.4 - Quinmester School Year



Students attend school 4 of the 5 time blocks. One-fifth of the students are always on vacation, if mandated. Advantages of the quinmester program include increased plant utilization, especially if mandated; a space saving of 25 percent if students are equally divided among the five quinmesters; acceleration of students who attend all sessions; greater flexibility to pupils in their curricular choices due to curriculum revision and full academic offerings provided each quinmester. (Rice, et.al., 1975).

The following review of literature examines the academic achievement of students, the attitudes of the school community (teachers and administrators, students, parents, and voters), and the financial costs incurred by school systems operating a year-round program according to a 45-15, four quarter, or quinmester plan.

Student Achievement

The Prince William County Public School District, Virginia, initiated a pilot 45-15 program with mandatory attendance in June 1971 as a financially reasonable means of accommodating a rapidly expanding community and student population. At the conclusion of the 1971-72 school year, the program was evaluated by means of an extensive opinion survey, a financial analysis, and a comparative study of academic achievement. Achievement gains of students were measured in a pre- and post-testing technique utilizing the Metropolitan Achievement Tests, 1970 Edition. The results of the study

indicated that neither the year-round schools, the 9-month traditional schools, nor the 9-month modified curriculum schools could be conclusively credited with an advantage in raising achievement scores (Nygaard, 1974). Four years of monitoring the achievement differences did not alter this conclusion (Education U.S.A., May 19, 1975, p. 219).

The Becky-David School, Francis Howell School District, Missouri, adopted a mandatory 45-15 plan in July 1969 as a means of meeting increased space needs. Achievement data were based on the administration of the Standard Achievement Test to fourth, fifth, and sixth grade students (35 at each level) attending Becky-David School and also a control school in the same district. The difference in gains between schools was found to be: (1) statistically significant ($p \leq .01$) favoring the control group in both reading and arithmetic at the fourth grade level, and (2) not significant in reading and arithmetic at the fifth and sixth grade levels. However, the Becky-David School qualified the fourth grade results by indicating that the control group at all levels had attended school a few weeks longer at the time of their achievement tests and that this advantage could account partially for the significant differences in gains (Nygaard, 1974). According to the project director, testing of students since 1970 has not shown any significant differences between the same groups (Ross, 1975).

During July 1971 the Chula Vista City School District, Chula Vista, California, initiated a mandatory 45-15 plan in 4 of its 26 elementary schools in an attempt to provide additional classroom space without incurring the costs of constructing a new school. A program evaluation was conducted after the first year of operation. Achievement data were obtained in a pre- and post-testing technique utilizing the Cooperative Primary Reading Test and the Cognitive Abilities Test. Achievement gains (between May 1971 and May 1972)

were not significant at either the second or third grade level. A similar study compared reading gains achieved by matched pairs (matched by grade, sex, I.Q., and previous reading achievement levels) of second and third graders from year-round and traditional year schools. The results of this second study revealed that for the second grade the mean pre- and post-test differences between matched pairs of boys were not statistically significant, while for matched pairs of girls the mean differences were significant ($p \leq .05$) in favor of the traditional school girls. At the third grade level, the mean differences between matched pairs were not significant for boys or girls (Nygaard, 1974).

During June 1970 the Valley View School District, Illinois, initiated a mandatory 45-15 plan in all of its seven elementary schools as a measure for absorbing a rapidly increasing student population. Student samples stratified by grade, school, sex, attendance track, and academic quartiles were selected from each of the seven elementary schools in the school district. At Valley View (Nygaard, 1974), an unidentified pre- and post- achievement test was administered in April/May of 1970 (prior to the implementation of the 45-15 plan), 1971, and 1972. While all three tests (1970, 1971, and 1972) showed significant differences between the seven schools involved in the 45-15 plan, the pre- and post- test scores over a two-year period at each school did not change significantly. Changes not reaching significance were more often gains than losses. Despite the inability to show significant achievement difference over short time spans, Ronald Avary (NEA, 1974) believes the 45-15 plan provides opportunity for improving the student's educational program. The student is evaluated after every 45-day segment, and whether he/she has to repeat the segment or advances to another course is based on his/her pace commensurate with his/her abilities.

The Dade County Public Schools, Florida, (Nygaard, 1974) concluded that the implementation of a voluntary quinmester program in seven pilot

schools during 1971-72 did not adversely affect student achievement as measured by the Stanford Achievement Test in reading and mathematics, and by failure rates in five subject areas. Conversely, however, it could not be proven that any increase in achievement was a result of the quinmester program.

Student achievement scores at the Loudoun County Schools, Loudoun County, Virginia (45-15 program) were obtained during the 1972-74 calendar years using the Metropolitan Achievement Tests in grades 1-3 and the S.R.A. Achievement Tests in grades 4-6. Results indicated that student achievement was not adversely affected; it may even have improved somewhat (Rice, et.al., 1975).

In summary, most studies incorporated achievement measures over too short a time frame to make results conclusive, but at least extending the school year did not seem to adversely affect student achievement. Of the previously identified school districts that had examined the academic achievement of their students after the implementation of a year-round program -- Prince William County, Virginia (45-15 plan); Dade County, Florida (quinmester plan); Valley View District, Illinois (45-15 plan); Loudoun County, Virginia (45-15 plan); and Chula Vista District, California (45-15 plan) -- none reported overall significant increases in academic achievement. That is, achievement for year-round school students was as good as, but no better than, that of traditional year students.

Cost Analysis

Year-round school costs incurred by Prince William County Public School District, Virginia, (45-15 plan) (Nygaard, 1974) in 1971-72 were compared to the costs that would have been incurred in a traditional school year. The purpose of the study was to determine the long-range effectiveness of the 45-15 plan in reducing costs. Start-up costs were appraised and reported separately, but were not included in the general comparison of on-going costs.

The analytical tool chosen for the financial analysis was selected with the idea of avoiding the problems inherent in the traditional budget reporting system, which fails to include any estimate of the cost of classroom and other building facilities in the evaluation of operational costs. The COST-ED Model was used as it includes both operating funds and capital resources in the evaluation of total consumption. A comparative study was conducted based upon the actual operating characteristics of the Mills E. Godwin Middle School during 1971-72. The cost of the resources consumed yearly, per pupil, under the 45-15 plan was compared to the cost per pupil under a simulated operation of the Godwin Middle School on a traditional plan. The cost of the 1971-73 school year's 45-15 program was $1,033.60 per pupil; had Godwin been operated under a traditional school program that year, the per pupil cost would have been $1,134.06. The 45-15 plan resulted in an estimated savings of $109.46 per pupil that year, or about 9.6 percent compared to the traditional-term program.

The following is a percentage breakdown of the 9.6 percent savings:

1. The teachers and aides who participated in the year-round project were given salary increases proportional to the increases in the length of their contracts. Their salaries were then 25 percent and 11 percent higher, respectively. However, these personnel taught one-third more classes due to the elimination of all non-teaching days for these staff members. The resultant 1 percent per pupil cost reduction was not considered to be necessarily a permanent one.

2. Support personnel were able to serve a one-third increase in student enrollment without additional help. All of these staff members not already on a 12-month contract were provided 12-month contracts, thereby increasing costs by 8 percent. Since one-third more students were serviced, a 1.9 percent pupil cost saving resulted.

3. A school building has four component costs: construction costs (principle based on bonds), financial costs (interest on bonds), operational costs (utilities and custodial services), and maintenance costs. Greater economy in all of these areas, through greater pupil use of the facilities under the 45-15 plan, resulted in a 4.2 percent pupil saving of $47.86. These savings were seen as being long-term in nature.

4. A 0.5 percent per pupil saving of $6.00 occurred due to the more efficient use of audio-visual equipment, classroom and library furniture, and other furnishings under the 45-15 plan.

From their research results, Prince William County concluded that the 45-15 plan had demonstrated significant savings and probably would realize greater benefits in the future. This conclusion, they cautioned, depended upon the efficient utilization or elimination of facility slack. If the system continued or became accustomed to having facility slack, the projected savings would not materialize. Start-up costs that amounted to $221,744.36 were incurred by Prince William County in initiating the 45-15 plan. Included in this amount was $5,400.00 for computer time donated by a private firm.

The financial evaluation of the Becky-David School in the Francis Howell School District, Missouri, (45-15 plan) was inconclusive as scattered data were collected, but not combined or interpreted in terms of per pupil costs. School officials concluded that there were no appreciable savings in operating costs; however, for the long term it was expected that new building costs would be reduced to 80 percent of what they would have been using the traditional year (Rice, et. al., 1975).

No formal financial evaluation was conducted by the Chula Vista City School District, California, (45-15 plan) (Nygaard, 1974) although during an interview the Assistant Superintendent reported that the greatest savings resulted by avoiding the purchasing of a land site, constructing a new building, and paying bond interest.

The Valley View School District (45-15 plan) (Rice, et.al., 1975) estimated its total tax avoidance in building construction costs at more than $10,500,000. It was found that the year-round school had apparently slowed the rising per pupil cost that generally accompanied school operation from year to year. Although there had been no real dollar savings per pupil,

the 45-15 year-round school plan resulted in a smaller increase in cost per pupil as compared to the increase between the two previous years. The findings regarding teacher salaries indicated that there was a definite increase in teacher salary cost per pupil accompanying the 45-15 plan. This increase, however, was found to be overshadowed by other elements which appeared to decrease per pupil costs: (a) supplies and equipment, (b) other instruction costs, (c) principal salaries, (d) guidance and counseling, and (e) operation and maintenance. Alvary (NEA, 1974) stated that immediate savings of about 5 percent per pupil were attainable if per-pupil debt retirement were high and enrollment were rising rapidly.

Cost analysis of direct operating costs of the Loudoun County Schools, Virginia, (45-15 plan) utilized comparisons of teacher-pupil ratios, personnel costs, utility costs, and transportation, of two schools on the 45-15 plan and two schools on the nine-month schedule. The year-round program showed an average, approximate savings of $16.00/pupil over the nine-month program (Rice, et.al., 1975).

Northville Public Schools, Michigan, (45-15 plan) realized a 5.1 percent savings in operational costs using the 45-15 extended school year plan. Start-up costs would be negligible unless a costly in-service training program were included (Rice, et.al., 1975).

Research conducted for the Annville-Cleona School District, Pennsylvania, which was faced with the alternative of adopting a year-round program or constructing a new school building, indicated that (1) the 45-15 plan would save the district about $89 per pupil of total operating cost in the last 18 years of the 20-year term of the district's bond issue, and (2) for the first two years the saving would be $51 per pupil over the construction of a new building (NEA, 1974).

An increase in administrative duties often results from the implementation of year-round programs. Chula Vista School District in California and Valley View School District in Illinois (both 45-15) found that the larger student population ment an increase in scheduling, record-keeping, and information dispersion. The pilot experience of the Dade County Public Schools (voluntary quinmester) indicated that their long-term goal -- to reschedule completely each student's program into 9-week units -- was impractical during the first year or two of implementation since the necessary support services and resources at the school and county levels were not available (Nygaard, 1974).

Weber surveyed 41 of the 45 schools across the United States which had utilized the 45-15 plan in one or more schools for at least one academic year in an effort to assess the operational costs. Suggestions that schools could be operated under a 45-15 plan at a lower cost were considered delusions which may mislead the taxpayers of a school district. The conclusions were: (1) Instructional materials and equipment costs do not increase because of the 45-15 plan, (2) Administrative costs do not increase proportionally, (3) Many districts (78 percent) went to the 45-15 plan in order to gain more classroom space, (4) The 45-15 plan is an efficient utilization of tax dollars, (5) It is not any more difficult to maintain the buildings that are in use twelve months, (6) There seems to be no major increase/decrease in the utility costs, (7) Insurance costs have not gone up because of the 45-15 plan, (8) School districts do not spend more money on capital outlay items, and (9) Transportation costs have not declined because of the 45-15 plan, and transportation insurance has not been increased because of extended usage of the buses (Rice, et.al., 1975).

The Dade County Public Schools (Rice, et.al., 1975) found direct costs at 19 voluntary quinmester schools were higher for the fifth (summer)

quinmester ($154,700 or a $14,700 increase) than for the first four quinmesters ($140,00 each) but could be reduced to a comparable level by increasing the ADA from 10,000 to approximately 28,000. Direct costs per ADA for the fifth quinmester in 1972 were lower than for a comparable segment of the 1971 regular summer school program. Direct costs per ADA at 19 quinmester schools for the first four quinmesters were comparable to the direct costs per ADA at 40 non-quinmester secondary schools for the regular 180-day school year. Most (approximately 83 percent) of the costs of the 1972 fifth quinmester (summer) were due to students who were either accelerating their graduation, or who had opted out of a regular quinmester. These costs would have been incurred eventually and, except for slightly higher costs due to higher per ADA costs, the major effect was that the costs were incurred sooner.

The Atlanta Public Schools initiated a four quarter attendance plan to improve educational opportunities for all students -- not to save money. The program's administrators believe, however, that there may eventually be some savings if, they caution, you measure expenditures against accomplishments. "But we never tried to hoodwink the public by telling them the plan would save," said Administrative Assistant Gillis. "Our whole emphasis is on curriculum" (Adams, 1970, p. 16).

Howe (NEA, 1974) stated that year-round schools make good business sense by (a) providing more efficient use of capital investments, (b) alleviating uneconomical and undesirable peaks in work and recreation, and (c) providing a more sensible way of looking at teacher salaries. Also, an operation offering the option of year-round employment with year-round pay to at least a portion of the district's teaching staff could increase teacher satisfaction by offering year-round employment to those who prefer it.

Callahan (NEA, 1974) stated that year-round schools have a place in the education process. However, unless state governments make fundamental reforms in educational financing, the fiscal pressures faced by large school systems prohibit them from instituting the rescheduled school year. Callahan documented municipal over-burden and showed how most suggested alternative methods of state financial aid discriminated against cities.

In conclusion, George Thomas aptly expressed the relationship between year-round programs and their costs when he stated: *"Quality education is not to be sacrificed, therefore supporters of an all year school plan are urged to combine the educational and economy objectives... It must be understood at the outset that no voluntary student attendance plan will ever release enough space and dollars to realize the economy objective"* (Thomas, 1973, p. 12).

The problem encountered when attempting to answer the question -- Does a year-round program save money? -- is that very little conclusive data on costs exists. Research studies may not even address the financial aspect, may provide only projections or estimates of savings, or may consider the costs secondary to curriculum improvements.

There is evidence that the 45-15 plan, which implies mandatory year-round attendance, does result in cost savings. For instance, estimated savings ranged from $109.46 per pupil or 9.6 percent (Prince William County, 45-15, includes operating funds and capital resources) to $89.00 per pupil (Annville-Cleona District, 45-15) to $16.00 per pupil (Loudoun County, 45-15) to 5.1 percent (Northville Public, 45-15). Estimated savings due to utilization of current space and not constructing new buildings ranged from 80 percent reduction in construction costs (Francis Howell District, 45-15) to total tax avoidance in construction costs of $10,500,000 (Valley

View City District, 45-15) to $51.00 per pupil for the first two years of 20-year term bonds (Annville-Cleona District, 45-15). As can be seen from the foregoing, the range of estimated savings is great, due in part to a lack of uniformity in methods of calculating these savings.

School districts operating under a voluntary year-round program found the cost per student in average daily attendance higher for the summer term due to lower attendance rates. For Dade County (voluntary quinmester plan) the cost of the summer quinmester in 1972 was $154,700 compared to $140,000 each for the four regular quinmesters. However, direct costs per ADA for the fifth (summer) quinmester in 1972 were lower than for a comparable segment of the 1971 regular summer school program. The Atlanta Public Schools (voluntary four quarter plan) estimated additional costs for the summer quarter at $3.44 per ADA at the elementary and middle levels and $4.01 per ADA at the high school level.

Irving Univer, Supervisor, School Facilities Planning for the school District of Philadelphia, has stated that any <u>voluntary</u> staggered attendance plan will produce higher costs because

> ....the absence of administrative controls over student selections of vacation slots -- or their choice to attend extra sessions -- will destroy the intent to gain space in overcrowded facilities and, therefore, will erode any hoped-for savings (Univer, 1976, p. 34).

When attendance is <u>controlled</u> through assignment of students to attendance-vacation cycles:

> Theoretically, per-pupil costs for facilities maintenance and operations are significantly reduced, as are other fixed per-pupil costs such as insurance, debt service, and, to a lesser degree, utilities, supplies, and equipment. Instructional per-pupil costs remain essentially the same or slightly diminished, depending on the types of contracts developed with the teachers. Administrative per-pupil costs, overall, will definitely be reduced (Univer, 1976. p. 34).

According to Don Glines, year-round education coordinator in California, (the state with the most experience in the operation of year-round schools) the concept of year-round education can no longer be advocated as a money-saver. It must be sold as a philosophy best suited to meet the educational needs of today and tomorrow (Education, U.S.A., February 9, 1976, p. 137).

Attitudes of the School Community

The various groups which have been surveyed concerning their attitudes toward the implementation of year-round programs have usually consisted of teachers and administrators, students, parents, and voters. Some school districts have surveyed only those individuals directly affected by a year-round program, while other districts have explored the attitudes of both participating and non-participating groups. The types of year-round programs involved include the 45-15 plan, the quinmester plan, and the four quarter plan. The following is a summary of the attitudes toward their respective year-round programs which have been expressed by groups in the school communities of numerous school districts that have attempted to extend the school year.

The Prince William County Public School District, Virginia, surveyed the attitudes of students, parents, and staff concerning the mandatory 45-15 plan. The results indicated that the majority of those groups directly affected by the plan favored it strongly. Sixty-seven percent of the students surveyed (4th and 7th graders) liked the plan, liked the more frequent vacations, and felt it had little effect on after-school activities. Seventy-two percent of the parents favored the 45-15 plan. Of the parents surveyed, fifty-five percent felt the 45-15 plan improved education for children, and 73 percent felt the plan should exist as a permanent program.

Of the staff members surveyed, there was a unanimous preference (100 percent) for the program among administrators, while 75 percent of the teachers preferred the 45-15 plan. Eighty-nine percent of the staff believed the program should continue, as they felt it provided a better educational program, required less review time by students, provided a desirable vacation schedule, and provided better teaching conditions. Parents', students', and staff's attitudes toward the program became more positive the longer the program was operational. The control parents, staff members, and fourth and seventh graders polled in other areas of Prince William County, who were not affected by the 45-15 plan, were not as supportive of the plan. In this case, only 52 percent of the parents, 73 percent of the school staff, 18 percent of the seventh graders, and 35 percent of the fourth graders reported that they would like the 45-15 plan (Nygaard, 1974).

The Becky David School (45-15 plan) in the Francis Howell School District, Missouri, concluded on the basis of a 53 percent return rate from questionnaires sent to parents that most parents felt the year-round program had helped their children learn. It was notable, however, that the percentage of parents who felt that way decreased with increasing grade level (Rice, et.al., 1975).

Second and fifth grade students in the Chula Vista School District, California, attending year-round (45-15 plan) and traditional schools were given pre- and post-tests during the 1971-72 school year to appraise any changes in their attitudes toward self (Self Appraisal Inventory) and school (The School Sentiment Index). The results indicated the traditional and year-round school boys did not differ significantly in their change of attitudes during the year, nor did second grade girls. Fifth grade girls

differed in their change of attitude toward school (significant beyond .05 level of confidence), but not toward self. Attitudes of fifth grade girls toward school became statistically less favorable for traditional-year girls, while year-round school girls experienced slightly more favorable attitudes toward school. In October 1972 a Chula Vista study using fourth, fifth, and sixth grade students who had attended the full 1971-72 year-round program indicated that 65 percent preferred the year-round calendar and 35 percent preferred the traditional school year (Nygaard, 1974).

In the Chula Vista City School District (45-15 plan) Nygaard (1974) reported no measurable difference in teacher morale between year-round and traditional schools. Rice, et.al., (1975) reported that during interviews teachers repeatedly said they felt year-round school was good for children; teachers were very positive toward the year-round program as it affected them personally. Parents overwhelmingly demonstrated their support for the year-round school, as a survey showed that 17 out of 18 parents felt year-round school was academically better for children. Military families indicated that 86 percent preferred the year-round school to traditional year programs (Rice, et.al., 1975). Parent favorability increased significantly the longer the program was operational (53 percent during pre-interview as compared to 79 percent during post-interview) (Nygaard, 1974).

After the first two years of operation of the mandatory 45-15 plan (1970-71 and 1971-72), the Valley View School District, Illinois, conducted an evaluation of its program. As a consequence of the reported success of the elementary 45-15 plan, the Valley View High School implemented a 45-15 plan in July 1972. Since the results of the high school year-round program had not been evaluated at the time of this study, the following results pertained only to the elementary year-round program. The reactions of the

students were the most stable -- "they started with somewhat negative feelings toward school and the 45-15 plan and the feelings remained so " (Nygaard, 1974, p. 24). Professional staff on the average showed increased acceptance of the 45-15 plan. Just as the staff had become more positive toward the 45-15 plan with time, so had the community. However, in contrast to the teachers, the community sample had not made sharp discriminations about various features of the plan. There existed a strong halo effect -- if they liked the plan, then they said good things about all aspects of the school program. In fact, it was not clear what was cause and what was effect (Rice, et.al., 1975). Alvary (NEA, 1974) also reported that the move to year-round operation was popular with economy-minded taxpayers and watchdog groups.

Secondary students of the Dade County Public Schools, Florida, participating in a voluntary quinmester program expressed a majority preference for the quinmester program. An advantage noted by 78 percent of the students was the greater number of courses available. The attitude displayed by the majority of teachers was positive. A majority of the teachers regarded the opportunity for immediate repetition of a course to be an advantage of the quinmester program, while the increased difficulty experienced in establishing rapport with students was the most frequently mentioned disadvantage (Nygaard, 1974). The principals unanimously credited the majority of parents with a positive attitude. The program had a positive effect on the community-school relationship in the majority of schools, in the opinion of the principals (Rice, et.al., 1975).

During September 1968 an optional four quarter plan was implemented in all of Atlanta's public high schools, and as of 1973 the fourth quarter (summer) had been implemented in 63 elementary and middle schools. The

attitudes toward the four quarter plan adopted by the Atlanta Public Schools (Rice, et.al., 1975) were favorable. A majority of the parents interviewed felt that the quarter system was as effective as the system it replaced; parents liked the flexibility of the quarter plan; but parents did not approve of the 2½ hour block of time for classes, as they felt the attention span of many students might not be equal to so long a time. The students also liked the flexibility afforded by the quarter curriculum, particularly in being able to select courses according to interest, experiencing new teachers and classmates each quarter, and being able to graduate early. The teachers found the 2½ hour block required fewer preparations; there was more time for hands-on experience; there was time for varied teaching methods in the same period; and there was more daily time for students. A majority of the administrators polled expressed satisfaction with the 2½ hour block of time and the four quarter plan.

The attitudes of participating and non-participating parents, staff members, and students of the Northville Public Schools, Northville, Michigan, (45-15 plan) were positive. The negative comments most frequently expressed by parents were that their children had no playmates during vacation periods, and that their children did not ride the same bus in the morning and afternoon (Rice, et.al., 1975).

In summary, the attitudes of the school community (teachers and administrators, students, parents, and voters) appeared to be positive toward the year-round school program. The attitudes tended to become more favorable the longer the program was operational as this afforded the affected groups of individuals more time to adjust to the changes necessitated by the implementation of a new school program. The advantages most frequently mentioned by the students were more frequent vacations, flexible quality

of the curriculum as more courses were available, opportunity to graduate earlier, small effect on after-school activities, and opportunity to experience new teachers and classmates. A majority of teachers and administrators preferred the year-round program. Many believed it should be continued because they perceived that the year-round program provided a better educational program, a reduction in review time for students, a desirable vacation schedule, better teaching conditions, the opportunity for immediate repeat of a course, more time for hands-on experiences, and more involvement with students as a result of longer class periods in some specific programs. Teachers felt the program affected them positively in a personal way, and had a positive effect on the community-school relationship. Parents' attitudes toward the year-round program were positive, as they felt it improved education and thus was academically better for children, was as effective as the system it replaced, and provided flexibility. Parents expressed concern that their children had no playmates during vacation periods and did not ride the same bus to and from school, and that the extended class periods of a particular program were too long to hold the students' attention. Attitudes of community members not directly affected by the year-round operation, although not as supportive as those of participating parents, tended to be relatively positive toward the programs.

Some Conclusions

Evaluations of year-round programs are both limited in number and generally inconclusive in nature. In most cases, the evaluations identify program outcomes that were dependent upon a particular interaction of educational variables. Researchers have had difficulty in isolating a year-round design (and its effects) from other variables (and their effects) such as classroom structure, curriculum design, and experience or expertise of teaching.

Consequently, the measurable differences that have been recorded between year-round and traditional schools cannot be viewed conclusively as the result of year-round operation.

The outcomes of year-round operation also have been confounded by the disruptive effects of change. Studies that have been conducted after or during the first year of program operation have caught the staff and students in a period of transition or adjustment. This transition has been more disruptive for some programs than others, depending upon the adequacy of staff preparation, receptiveness of students and community, and the mechanics by which the program was implemented. In some cases, year-round schools have overburdened their systems by attempting to implement too many changes at once. Generalizations regarding the actual value or potential of the program design would be premature and misleading if based only upon initial results. Further research is needed after year-round schools have had an opportunity to develop stable programs, in order to obtain a more accurate picture of the effects.

In view of these precautions, six observations can be made at this time:

1. School districts have avoided or postponed large capital outlay for additional facilities and have reduced per pupil expenditure by some types of year-round operation.
2. Year-round operation has been accepted by an increasing percentage of staff, students, and parents as they have gained familiarity and experience with the new type of operation.
3. According to most measurements of performance, student achievement has not been significantly affected by the change to year-round operation.
4. Year-round operation has tended to result in increased administrative responsibilities.
5. Some family conflicts have developed when schools in a community have operated under different school year calendars.

6. Year-round operation seems to have facilitated or stimulated the development of individualized instruction in some cases (Nygaard, 1974).

D. SPECIFIC OBJECTIVES OF THE KNOX COUNTY EXTENDED SCHOOL YEAR PROGRAM

In November 1974 the evaluation director, in cooperation with the ESY administrative staff, developed a set of specific objectives for ESY. It was assumed that the objectives would be achieved over the three-year trial period originally planned for the program. In most cases, when comparisons over time are indicated in the objectives, data collected during the years of the ESY trial (i.e., 1974-75, 1975-76, 1976-77) were to be compared with baseline data from ESY schools for the three years of operation prior to ESY (i.e., 1971-72, 1972-73, 1973-74). Glass, Willson and Gottman (1975) have pointed out that it is difficult to identify trends in time series data with any confidence when fewer than 50 time points are available (p. 112). In several instances the ESY data did not yield measurements for more than six time points. Thus any conclusions based on these data are, of necessity, quite tentative. Nevertheless, in the absence of a control group -- which was just not feasible in this situation -- the quasi-experimental interrupted time-series design offered the best model for the ESY evaluation.

The ESY objectives were:

1) To provide a new curriculum which represents an improvement over that employed heretofore in the ESY schools in these areas:

   a) Student morale and motivation as evidenced by

      --- increased attendance

      --- lower dropout rate

      --- reduction in incidence of disciplinary referrals to principals

      --- reduction in vandalism, i.e., willful destruction of school property

      --- increased circulation of library books

      --- increased circulation of other instructional materials (particularly those available in the classroom)

--- attitude toward school (as measured by a standardized instrument designed for this purpose)

--- expression of the perception by at least a majority of the students that instruction is being individualized

b) Professional staff satisfaction as evidenced by

--- positive responses on the part of at least a majority of the staff to at least half of the queries about the new curriculum which may be included in questionnaires or interviews administered as part of the internal or external evaluation process

--- expression of satisfaction on the part of at least a majority of the staff that more curriculum materials have been made available through the ESY Program

--- expression of the perception by at least a majority of the staff that the new curriculum materials facilitate individualization of instruction

--- no appreciable increase in staff turnover

c) Student achievement as evidenced by

--- higher (or at least not substantially lower) group scores on standardized achievement tests

--- reduction in the proportion of failing grades given at Farragut High School

--- higher group scores on tests designed to measure aptitude for college work (e.g., ACT or SAT)

--- increased parental approval of the effects of the curriculum on their children

2) To provide an instructional program which is perceived by at least a majority of the administrators as easier to evaluate than the previous program

3) To provide student scheduling which will facilitate operation of ESY and not penalize the student who attends school during the summer quinmester

4) To provide an organizational structure which at least a majority of the professional staff perceives as supportive of ESY and the new curriculum

a) To explore role perceptions of administrators, supervisors, and teachers

b) To assess staff satisfaction

c) To explore communication and decision-making processes

d) To satisfy the perceived need for psychological and technical support for professional staff

e) To satisfy the perceived need for curriculum materials

f) To satisfy the perceived need for physical facilities essential to the program

5) To provide professional staff with a continuing program of orientation and professional development which is perceived by at least a majority of the staff as adequate to meet their informational needs

6) To provide more efficient use than at present of school facilities and professional personnel

a) To provide some relief from over-crowded facilities by reducing by at least ten percent the anticipated pupil enrollment during each of the four "regular school year" quinmesters (September through May)

b) To provide, over a period of years, sufficient reduction in capital outlay to offset the increased operational costs of the ESY Program

7) To produce an expression of a favorable attitude toward ESY on the part of at least a majority of those persons concerned about schools in the Farragut High School attendance zone through an appropriate information program

a) To produce an expression of a favorable attitude toward ESY on the part of at least a majority of the voting population in the Farragut High School attendance zone

b) To produce an expression of a favorable attitude toward ESY on the part of at least a majority of the students attending the five ESY schools

c) To produce an expression of a favorable attitude toward ESY on the part of at least a majority of the parents of the students attending the five ESY schools

d) To produce an expression of a favorable attitude toward ESY on the part of at least a majority of the professional staff associated with the five ESY schools

8) To document the feasibility of a five-term, optional attendance, extended school year program in a suburban Tennessee school system

a) To show that using a voluntary attendance plan, a summer quinmester enrollment of at least twenty-five percent of the anticipated total school enrollment for the coming year can be attained

b) To demonstrate that a quality educational program (with sufficient materials, equipment, and facilities) can be provided at a cost which the community is willing to bear

c) To determine the advantages and/or disadvantages of an extended school year program at the primary level, at the middle school level, and at the high school level

E. OBJECTIVES OF THE ESY EVALUATION

The ESY evaluation plan involved collection of data that would provide the basis for formative and summative evaluation relative to the specific program objectives listed in the preceding section.

Thus the evaluation activities could be grouped into four major categories:

1) Curriculum improvement and student scheduling to accomodate curriculum changes.

2) Organizational structure and professional development.

3) Facility usage and cost effectiveness.

4) Acceptance by Knox County voters and personnel associated with ESY schools.

Four teams of University of Tennessee College of Education staff members, each with expertise in one of these four areas, were formed to conduct the ESY evaluation. Curriculum improvement objectives were treated primarily by a team composed of Dr. Robert Howard, Dr. Lester N. Knight, and Dr. John R. Ray of the Department of Curriculum and Instructuion. Dr. John T. Lovell of the Department of Educational Administration and Supervision (EA&S) met with the Curriculum Committee to discuss areas of common interest, but conducted a separate evaluation of the ESY organizational structure and program of professional development.

Facility usage and cost effectiveness were studied by Dr. Kenneth O'Fallon of the Bureau of Educational Research and Service (BERS) and Dr. George W. Harris of EA&S. A voter opinion survey in selected areas of Knox County was conducted by Dr. Larry Hughes of EA&S and his graduate student Mr. Jerry Kondwros.

Overall coordination of the ESY evaluation, including assistance with some of the data-gathering instruments and processes, was the responsibility of Dr. Trudy W. Banta of the BERS.

In addition to the objectives for curriculum improvement previously identified, the Curriculum Committee established its own set of evaluation objectives during the second year of the project. The objectives were:

1. To ascertain the extent to which
   a) teachers were familiar with the content of Knox County Schools Instructional Goals and Objectives.
   b) teachers and administrators approved of the content of this document after a year of use.
2. To describe and assess the procedures used to determine
   a) the scope of the individual curriculum modules.
   b) the sequence of concepts or topics presented in each module.
3. To describe and assess the procedures used to determine the content (i.e., the development of the concepts or topics presented) of curriculum modules. (What resources were used? How was time allocated among concepts? How were learning activities chosen? How were the procedures for evaluation of pupil progress determined?)
4. To identify the components of the curriculum modules which teachers and administrators perceived as a) facilitators and/or b) constraints in implementing curriculum modules in the classroom.
5. To describe and assess the extent to which curriculum content was adapted to accommodate the varying learning styles of individual students.
6. To describe and assess the extent to which curriculum content was adapted to accommodate the varying academic achievement levels of individual students.
7. To determine the extent to which curriculum module development proceeded toward completion during the first two years of program operation.
8. To determine the extent to which curriculum modules were used by ESY teachers.
9. To describe and assess the system used by ESY administrators and supervisors to evaluate (i.e., internal evaluation) and revise the curriculum modules.

SECTION II.

PRESENTATION OF THE EVALUATIVE DATA

A. INTRODUCTION

The information presented in this section of the ESY evaluation report is organized according to the four major evaluative components outlined in Section I, Part E, i.e.,

Curriculum Improvement
Organizational Structure and Professional Development
Facility Usage and Cost Effectiveness
Acceptance

Within each of these areas data related to the specific ESY objectives are presented and analyzed in the order established for those objectives in Section I, Part D. Due to the abbreviated time period (May-October 1976) available for collecting information for this final report, new data were not supplied in connection with every objective. Consequently, some sections of this report contain summaries of information which appeared in one or both of the two previous ESY evaluation reports. While these summaries were developed by the evaluation coordinator, much of the original data collection and analysis was contributed by other members of the evaluation team. The report on teacher perceptions of the new curriculum materials was developed by Professors Robert Howard, Lester N. Knight, and John R. Ray of the University of Tennessee's Department of Curriculum and Instruction. The organizational structure and professional development program associated with ESY were described by Professor John T. Lovell of the Department of Educational Administration and Supervision. Facility usage and cost effectiveness were assessed by Professors George W. Harris, Jr. and O.K. O'Fallon of the Department of Educational Administration and Supervision.

B. CURRICULUM IMPROVEMENT

Student Morale and Motivation

Attendance

In specifying 'increased attendance' as one indication that the new curriculum associated with ESY had had a positive effect, project staff made the assumption that if students enjoy their academic work they will be motivated to come to school more regularly than if they consider school work dull, irrelevant, lacking in challenge.

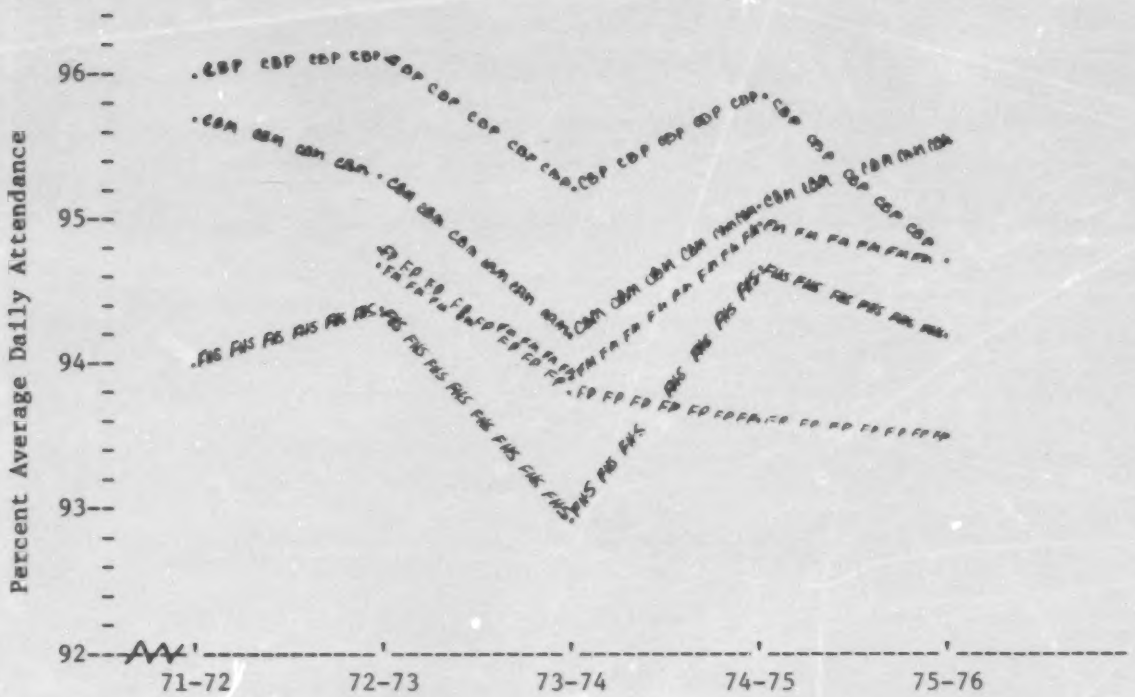
Figure II.1 provides a graphic illustration of percent average daily attendance at the five ESY schools for the three years prior to initiation of ESY, and for the two operational years: 1974-75 and 1975-76. Attendance figures for Farragut Primary (FP) and Farragut Middle (FM) schools were not available for 1971-72 because these schools did not exist until 1972-73.

The figure shows that total ESY school attendance was quite high, and remained stable (a slight increase at two schools was offset by a decline at the third) between 1971-72 and 1972-73 at the three schools for which data were available. During 1973-74 attendance dropped at all five schools. During the first year of ESY and the accompanying curriculum changes, attendance climbed at four of five schools. Two of the schools (FM and Farragut High) experienced the highest average daily attendance of the five year period during the first year of ESY. However, during the second year unusually severe epidemics of chicken pox and influenza contributed to another slight drop in attendance at all schools except CBM.

Averaging ADA figures for all schools over the years of interest shows that average daily attendance at the ESY schools was 95.2 in 1971-72, declined to 95.1 in 1972-73 and to 94.0 in 1973-74, then rose to 94.9 during the first year of ESY, but declined to 94.5 in 1975-76.

FIGURE II.1

PERCENT AVERAGE DAILY ATTENDANCE FOR ESY SCHOOLS-1971-72 THROUGH 1975-76



CBP = Cedar Bluff Primary
CBM = Cedar Bluff Middle
FP = Farragut Primary (school not operational in 1971-72)
FM = Farragut Middle (school not operational in 1971-72)
FHS = Farragut High

Attendance figures for just five years, only two of which were years of program operation, are insufficient to support firm conclusions about attendance trends at the ESY schools. However, the data strongly suggest that ESY did not have a significant impact on average daily attendance during the regular school year. Inspection of Figure II.1 indicates that during the two ESY years, attendance at the five schools decreased in as many instances -- five -- as it increased. And the yearly averages for all schools indicate that despite an increase from the 1973-74 low during the first year of ESY, that increase did not pull ADA

back to the levels of 1971-72 and 1972-73, with the overall result that ADA declined by more than .5 percent between 1971-72 and 1975-76. The introduction of ESY did not significantly alter that gradual decline.

Figure II.2 compares average daily attendance for the two summer quinmesters with that of the subsequent September-June school years. Summer attendance was higher than that for the regular school year at three schools during both summer quinmesters, but the five-school averages for the summers were not significantly different from the regular year averages. Thus average daily attendance during the summer quinmesters was essentially the same as ADA during the September-June school years.

FIGURE II.2

PERCENT AVERAGE DAILY ATTENDANCE AT FIVE SCHOOLS FOR ESY SUMMER QUINS AND SEPTEMBER-JUNE SCHOOL YEARS - 1974-75 and 1975-76

	SUMMER 1974	1974-75	SUMMER 1975	1975-76
CBP	93.9	95.9	93.3	94.7
FP	94.3	93.6	94.1	93.5
CBM	95.6	95.1	95.6	95.6
FM	95.7	95.0	95.5	94.7
FH	94.5	94.7	94.4	94.2
Average	94.8	94.9	94.6	94.5

Dropouts

Dropout statistics were assumed by ESY project leaders to be inversely related to student morale and motivation, i.e., if students' feelings that their needs were being met by the curriculum increased, the dropout rate should show a decrease.

Data reported in Figure II.3 indicate that indeed the number of high school dropouts did decrease during the two-year ESY trial. Unfortunately the decrease

FIGURE II.3

NUMBER OF DROPOUTS AT ESY SCHOOLS - 1971-72 THROUGH 1975-76

SCHOOL	CBP					FP					CBM					FM					FH					
YEARS	1	2	3	4	5	*1	2	3	4	5	1	2	3	4	5	*1	2	3	4	5	1	2	3	4	5	FH Totals
Parental Indifference			1		2						1													1		1
Misbehavior											1												5	3		8
Employed											2										9	6	9	6	2	32
Marriage													1					1			4	7	11	5	5	32
Lack of Scholastic Success														1								2	1	18	4	25
Suspended																			2		3		1	2	2	8
Military Service																					2	2	3	1	1	9
TOTALS	0	0	1	0	2	*	0	0	0	0	4	0	1	1	0	*	0	1	2	0	18	17	30	36	14	

YEARS: 1 = 1971-72, 2 = 1972-73, 3 = 1973-74, 4 = 1974-75, 5 = 1975-76.

* School not in operation during 1971-72.

could not be attributed solely to the effects of ESY curriculum changes; labor market constriction and other societal pressures, as well as school policies and procedures, undoubtedly contributed to the decrease also. In the primary and middle schools the dropout rate was relatively stable and quite low. At FH the number of dropouts decreased dramatically during the second year of ESY, and it would have shown a decrease in 1974-75 also had there not been an eighteen-fold increase in the 'lack of scholastic success' category. This increase was due principally to a new grading policy instituted that year: no credit was awarded to a student who missed more than five classes in a subject if at least one of the absences was unexcused. Marginal students who were never motivated to attend school regularly were pushed out due to academic failures resulting from the new policy. Apparently only one year was needed to institutionalize the grading policy since the number of FH students dropping out due to lack of scholastic success leveled off in 1975-76 to near 1972-73 and 1973-74 figures.

Over the four-year period under consideration, employment and marriage were the principal reasons for leaving school given by FH students. Even these categories contained fewer students by 1975-76: 'employment' as a reason for dropping out fell from highs of nine in 1971-72 and 1973-74 to five, and 'marriage' as a reason dropped from eleven students in 1973-74 to five. The number of students leaving school for 'misbehavior' declined from a high of five the year prior to ESY to three during ESY's first year, then to zero during the second year of the program.

Discipline

In May 1976 the evaluation director and a research assistant visited each of the five ESY schools for the purpose of talking with principals and a sample of teachers about their perceptions of various aspects of the ESY project. Since it was assumed that students involved in their school work would get into

trouble less often than those bored with the curriculum, the evaluation plan involved asking principals about the incidence of disciplinary referrals from teachers during the years 1971-76.

The ESY principals were not, in general, able to say that ESY had caused an appreciable difference between 1974-75 and 1975-76 and the three previous years in the number and seriousness of disciplinary referrals in their schools. They were in agreement that discipline was not a problem at all during the summer quinmesters. Student-faculty morale was so high that discipline problems were virtually eliminated from the concerns of principals during the summers. However, the number of students attending the two summer quins was not great enough to produce a significant impact on overall student attitudes and behavior during the regular school years.

Vandalism

Students pleased with what is going on in their school should be less likely than those who are discontented to engage in willful destruction of school property. Thus a reduction in vandalism at ESY schools following the introduction of the new program might be viewed as an indication that students were more satisfied with their school experiences than they were formerly.

When principals of ESY schools were interviewed in May 1976, however, they were not able to attribute to ESY any change in the number or seriousness of incidents involving vandalism at their schools during the September-June school year. The principals did report that vandalism was almost non-existent during the summer quinmesters. They felt that this could be attributed to the positive attitude toward school which prevailed among summer students.

Circulation of Library Books

Information concerning circulation of library books and other instructional materials was sought as part of the evaluative data because it was assumed that

increased circulation might be indicative of an increase in interest and independent activity fostered by the ESY curriculum changes.

Librarians at the five ESY schools provided the circulation data for Figure II.4.

FIGURE II.4

NUMBERS OF LIBRARY BOOKS CIRCULATED* AT ESY SCHOOLS - 1971-72 THROUGH 1975-76

	1971-72	1972-73	1973-74	1974-75	1975-76
Cedar Bluff Primary	20,872**	50,288	58,036	54,402	59,283
Farragut Primary	7,290***	21,304	23,048	27,808	36,890
Cedar Bluff Primary	Not Available	Not Available	34,158	33,171	33,132
Farragut Middle	29,000	31,403	21,541	23,372	20,192
Farragut High	8,793	7,829	10,454	14,791	11,311

* Figures do not include circulation by individual teachers of books and materials housed in classrooms.

** Library opened in mid-year; circulation limited to one book due to small collection.

*** School opened in mid-year and library was used for only nine weeks.

Librarians generally agreed that the ESY curriculum changes had increased the use of library references. At the primary schools, where library circulation expanded during the ESY years, the use of learning centers and task cards to promote individualized learning was considered responsible for the increase. Middle and high school librarians noted that the new curriculum modules focused on particular topics for longer periods of time, thus increasing depth of exploration and, consequently, use of references. However, circulation declined at CBM during both ESY years, and at FM and FH during 1975-76. Since librarians felt the use of references had increased, one explanation for the lower figures is that reading for pleasure decreased above grade five.

Three of the five librarians considered their collections inadequate to meet the reference requirements of the new curriculum. All had experienced some difficulty in accommodating simultaneous requests for the same materials by two or more teachers using the same modules.

Circulation of Other Instructional Materials

When a sample of teachers at each of the five ESY schools was interviewed in May 1976, half of those questioned felt that students were using more instructional materials with the new curriculum than they had prior to ESY. Most of the remaining respondents did not believe that the use of the modules had produced a significant increase in usage of instructional materials other than library books (specifically, those materials available in the classroom). Several of the primary teachers said that more materials would have been used if they had been easier to obtain. Usage of the ESY modules had created a situation in which more teachers were teaching the same topic than ever before. As a consequence, waiting lists had to be devised for curriculum materials and these caused frustration at all the schools. The necessity of sharing classroom texts among several classes was particularly troublesome to middle school teachers. (State funding provided one textbook per student per subject, so if a teacher wanted multiple titles to be available, there would never be enough copies of any single title for every student to have one.)

Attitude Toward School

Administrators responsible for ESY made the assumption that if the 'improved' curriculum worked well and was perceived as valid and relevant by students, those students would exhibit a positive attitude toward school.

In March 1975 the "School Sentiment Index" (SSI) developed by the Instructional Objectives Exchange at UCLA was administered to all third graders, all sixth

graders, and all tenth graders (one grade at each of the school organizational levels) at the ESY schools in order to assess various aspects of student attitude toward school. In general, student perceptions were found to be quite positive at all levels: at least a majority of the students in each grade surveyed expressed a favorable attitude toward every aspect of school represented by a subscale on the form of the SSI administered to that grade.

Primary level students responded most positively to the "School Subjects" subscale -- the average positive response rate for items in this category was 82 percent. The third graders exhibited the most positive attitudes toward art, social studies, reading, and science, in that order. The average response rate for items in the "Social Structure and Climate" subscale for third graders was 78 percent, for the "teacher" subscale 73 percent, for the "General" subscale 67 percent, and for the "Peer" subscale 66 percent.

Middle school youngsters expressed their most positive attitudes on items in the "Peer" subscale of the SSI, with an average positive response to items in that subscale of 73 percent. The sixth graders liked working with their classmates, and they regarded school as a good place for making friends. On the other SSI subscales ESY sixth graders compiled these average positive response percentages: "Teacher" - 67, "Learning" - 63, "Social Structure and Climate" - 63, and "General" - 51.

Responses to items in the Learning subscale of the SSI seemed to have the most relevance for judging the effects of the ESY curriculum on attitudes of middle school students. The average favorable response percentage for the subscale was 63 -- indicating a relatively positive set of attitudes for this pre-adolescent developmental level. As might be expected of this age group, only 26 percent of the respondents said, "I like to do my homework," and 44 percent agreed with the statement "I would rather do almost anything else than

study." But 83 percent felt it was "fun" to learn new things; and almost three-fourths reported that they did quite a bit of reading on their own.

The average favorable response percentages calculated for ESY tenth graders on the five subscales of the secondary level form of the SSI were as follows: "Peer" - 72, "General" - 67, "Learning" - 62, "Teacher" - 53, and "Social Structure and Climate" - 51.

Apparently ESY tenth graders and sixth graders shared very similar attitudes toward Peers and Learning as measured by the SSI: the rank order and even the response percentages associated with these subscales were virtually identical as calculated for the two classes. There similarity ends, however, since sophomores had much more positive attitudes on the "General" subscale than did the middle school sample. And sixth graders held much more favorable attitudes toward their teachers than did sophomores. Attitudes associated with "Social Structure and Climate" were among the least favorable for both groups of ESY students, but the percentage of favorable responses on this subscale was much lower (by 12 points) for sophomores.

The "Learning" and "General" subscales of the SSI appeared to provide the best measures of the effect of ESY on tenth graders' attitudes toward school. The fact that approximately two-thirds of the ESY sophomores held favorable attitudes in these areas could be construed as a plus for ESY. However, no prior measure of attitudes was available to indicate how instituting ESY may have changes sophomores' feelings about school; and there was no attempt to isolate ESY from the many other determinants of attitudes expressed on the SSI.

Ninety-two percent of the FH tenth graders agreed with the "General" subscale item "It is clear to me why I shouldn't drop out of school." Three-fourths or more agreed with five other items designed to assess the importance the students attached to attending school. Responses of sophomores to Learning

subscale items indicated that ninety percent recognized relationships between things observed outside school and content of school subjects. More than three-fourths of the tenth grade respondents agreed with the statement "My favorite classes, regardless of subject, are those in which I learn the most."

A need for more electives at FH was suggested by the fact that 81 percent of the sophomores agreed with the statement, "There are important subjects not taught in school now which I would be interested in taking if they were offered."

The most negative response on the Learning subscale was a predictable one: 81 percent of the sophomores agreed with the statement, "I hate having to do homework."

Since no comparable measure of student attitude toward school prior to 1974-75 was available, there was no way to determine whether the ESY curriculum changes had produced an improvement or a decline in student attitudes. However, administration of the appropriate form of the SSI at each level (primary, intermediate, and secondary) provided evidence of favorable attitudes toward school in general at all five schools. Without exception, the students exhibiting the most favorable attitudes at each school were those who had begun the 1974-75 school year by attending the Summer Quinmester. Thus it could be assumed that year-round scheduling and the new curriculum had not exerted a significant negative influence on student attitudes during the first year of the program.

Since student attitudes toward school in 1974-75 were found to be quite favorable at the ESY schools, and little change was expected in these attitudes in 1975-76, the very time-consuming "School Sentiment Index" was not administered during the second year of the program. Instead, questionnaires were given to third, sixth, and tenth grade students in March 1976 which contained specific items about year-round scheduling and the new curriculum. Responses to those items in the "Reaction to ESY" forms which were designed to assess generalized attitudes toward school are recorded in Figure II.5.

FIGURE II.5

PERCENTAGE OF 'YES' RESPONSES TO GENERAL ITEMS IN "REACTION TO ESY" EXPRESSED BY STUDENTS IN ESY GRADES 3, 6, AND 10 IN MARCH 1976

	ALL Grade 3	SUMMER 3	ALL Grade 6	SUMMER 6	ALL Grade 10	SUMMER 10
Do you like school more this year than last year?	71	72	75	69	57	67
Do your teachers seem to like ESY?	72	78	78	83	67	79
Do you like the new lessons and learning activities that the teachers have been using since ESY began?	85	80	77	77	67	85
Have those students who went to school last summer (1975 Summer Quin) had any problems with their classes during the regular school year?	27	20	29	14	40	48

Considering the responses to the first three items in Figure II.5, it is evident that substantial majorities of third, sixth, and tenth graders held positive attitudes toward school and the new curriculum in March 1976. Comparison of these responses with similar ones obtained in March 1975 indicates that student attitudes improved in these areas during the second year of ESY. A reasonable conclusion seems to be that institutionalization of the ESY schedule and curriculum changes resulted in improved and quite positive student attitudes toward school.

More specifically, two-thirds of the third grade respondents in March 1975 said they were more interested in school than they had been before ESY began. In March 1976, 71 percent of the third graders liked school "more this year than last year." In 1975 a majority of sixth grade respondents said 'no' when

asked if they were more interested in school since ESY began. By 1976 three-fourths of the sixth graders responding liked school more than they did during the previous year -- a dramatic positive change. A similar reversal took place in sophomore opinion: in March 1975 just 34 percent of the tenth graders responding were willing to say that their interest in school had increased since ESY began, but one year later 57 percent of the sophomore class liked school more than they did the previous year.

Changes in the percentage of positive responses to the question "Do your teachers seem to like ESY?" which took place between March 1975 and March 1976 were as follows: 55 to 72 in Grade 3, 58 to 78 in Grade 6, and 48 to 67 in Grade 10.

When asked if they liked "the new lessons and learning activities" associated with ESY, two-thirds of the third graders responded positively in March 1975, while 85 percent responded positively in March 1976. The positive response percentages for this item rose 30 points at the sixth grade level and 16 points at the tenth grade level between 1975 and 1976.

In most instances students who had attended the 1975 Summer Quinmester expressed more positive attitudes toward school and toward the new curriculum than did their classmates who began the school year in September. However, they did report that there had been some problems associated with their attendance in the summer, and there was no significant decrease between 1975 and 1976 in the percentage of summer students who said they had had difficulties.

Summer students were asked to identify the problems they had experienced, and at the primary level 57 percent of the responses were in two categories: 31 percent said they had had "some trouble making friends in their classes" when they returned from a vacation quinmester, and 26 percent said "Summer Quin students were behind in some subjects and had to catch up." At the middle

school level 60 percent of the problem responses were in two categories: 30 percent of the sixth graders said "Summer Quin students were behind in some subjects and had to catch up" but an equal percentage said "Summer Quin students were ahead in some subjects and had to do some work over again." Forty-three percent of the sophomores who said they had had problems as a result of attending the 1975 Summer Quin identified class scheduling as their biggest headache. One summer sophomore added the comment "I had no lunch all year" because he had to schedule classes he needed during the lunch period. Two other summer students reported that they had been unable to schedule the second quin of a course sequence begun in the summer. Summer sophomores, as well as summer sixth graders, were equally divided on the subject of being "ahead" or "behind" in their classes because of their summer attendance: 20 percent checked each alternative.

While majorities of third, sixth, and tenth graders who attended the 1975 Summer Quinmester did not feel penalized by having taken advantage of the summer session, significant proportions of these students did experience problems, and the difficulties which were identified suggest that the articulation between the summer curriculum and that followed from September to June was somewhat flawed and should have been given more attention by teachers and supervisors.

In March 1976 "Reaction to ESY" questionnaires were supplied to the five ESY school principals for administration during the last 10 days of the fourth quin to all third graders, all sixth graders, and all sophomores in their English classes. Due to absences and scheduling problems at the high school, the data summarized above were actually based on responses from 92 percent of the ESY third graders, 86 percent of the sixth graders, and 74 percent of the tenth graders enrolled in March 1976. There is no reason to believe, however, that the respondents at each level constitute anything other than a random sample of students in their respective classes.

Individualization of Instruction

One of the principal goals of the curricular revisions associated with the ESY project was individualization of instruction. Curriculum modules were to be designed with suggestions for making the content understandable and interesting for students of differing achievement levels and learning styles. Knox County administrators felt that one of the ESY curriculum objectives should be the expression by at least a majority of the students of the perception that instruction was being individualized.

Farragut High. An extensive review of existing curriculum evaluation instruments revealed only one that focused specifically on individualization of instruction. The "Instruction Questionnaire" by Jack L. Hunter[1] was developed for high school students, so the initial administration was to sophomores at Farragut High in March 1975.

The fourteen items of the "Instruction Questionnaire" provided a detailed characterization of individualization from one point of view, indeed the items constituted an operational definition of the concept. If this could be considered a valid instrument for assessment of the extent of individualization of instruction taking place at FH, then the curriculum objective related to individualization was not achieved during the first year of ESY operation. Majorities of FH sophomores apparently felt that course objectives had been clearly outlined and that their progress toward meeting those objectives was being effectively monitored. But they did not feel that they had had a significant role in determining the objectives or in developing their own plans for achieving them. From 56 to 94 percent of the sophomore sample responded negatively to eleven of fourteen items in the "Instruction Questionnaire."

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[1]The author's current address is Woodland Park, Easley, South Carolina 29640.

In March 1976 FH sophomores were asked to respond to eight items concerning individualization which were essentially the same as items on the "Instruction Questionnaire" administered one year earlier. These items are listed in Figure II.6 with the percentages of positive responses given by sophomores in 1975 and in 1976.

FIGURE II.6

PERCENTAGES OF 'YES' RESPONSES GIVEN BY FARRAGUT HIGH SOPHOMORES IN 1975 AND IN 1976 TO ITEMS RELATED TO INDIVIDUALIZATION OF INSTRUCTION

	1975	1976
1. Early in the school year (September) were you given tests in most of your subjects (such as English, math, and science) to see how much you already knew?	30	79
2. In most of your subjects are you allowed to skip over things you already know?	7	27
3. In most of your subjects are you allowed to study extra topics that are not the same as the topics other students are studying?	7	25
4. In most subjects are you allowed to work as fast or as slowly as you need to work in order to learn the subject?	18	28
5. In most subjects are you allowed to use some study materials or equipment that are not the same as those the other students use?	10	33
6. In most subjects is your work often checked to see if you are doing as well as the teacher expects you to do?	69	75
7. In most subjects, after the work is checked, are you told if you have done as well as expected, and what you should do next?	44	54
8. In most subjects do you and the teacher plan the work just for you?	3	3

The most significant characteristic of the figures in Figure II.6 is the large positive change which took place in the responses to most items between 1975 and 1976. With the exception of Item #8, the positive response percentages

in 1976 exceeded those in 1975 by 10 to 49 points. Apparently progress was made toward individualizing instruction as the new curriculum materials were institutionalized. However, the goal of positive perceptions of individualization by a majority of students had not been reached by the end of the second year of ESY at FH. Three-quarters of the sophomores said they had been pre-tested, but only one-quarter perceived that their assignments had been adjusted on the basis of the pre-test results. Just 28 percent felt they were able to work at their own rates of speed, and only one-third perceived that they were using differentiated study materials. Three-quarters of the sophomores felt that their progress was monitored regularly, and over half said they were told what to do next following an assessment of their work. But only three percent answered positively the item which provided the most crucial test of individualization: 'do you and the teacher plan the work just for you?'

Primary and Middle Schools. Since the "Instruction Questionnaire" used to assess the extent of individualization at FH in 1975 was designed for high school students, it was not administered to primary and middle school students in 1975. However, the same modifications of "Instruction Questionnaire" items which were given to FH sophomores in March 1976 were also given to third and sixth graders at the same time. The resulting positive response percentages appear in Figure II.7.

As was the case with sophomores, neither third nor sixth graders had the feeling that they were working with teachers to plan individualized learning programs for themselves. And less than one-third of the third and sixth graders felt that they had been allowed to 'skip over things' the pre-tests showed they already knew. But on six of eight items related to individualization majorities (actually the figure was 49% for sixth graders on Item #3) of third and sixth graders provided favorable responses, thus meeting the 'majority positive'

FIGURE II.7

PERCENTAGES OF 'YES' RESPONSES GIVEN BY ESY THIRD AND SIXTH GRADERS TO ITEMS RELATED TO INDIVIDUALIZATION OF INSTRUCTION

	GRADE 3	GRADE 6
1. Early in the school year (September) were you given tests in most of your subjects (such as English, math, and science) to see how much you already knew?	81	59
2. In most of your subjects are you allowed to skip over things you already know?	30	28
3. In most of your subjects are you allowed to study extra topics that are not the same as the topics other students are studying?	56	49
4. In most subjects are you allowed to work as fast or as slowly as you need to work in order to learn the subject?	79	66
5. In most subjects are you allowed to use some study materials or equipment that are not the same as those the other students use?	60	54
6. In most subjects is your work often checked to see if you are doing as well as the teacher expects you to do?	94	93
7. In most subjects, after the work is checked, are you told if you have done as well as expected, and what you should do next?	76	69
8. In most subjects do you and the teacher plan the work just for you?	22	10

criterion established for individualization by ESY administrators. The surveyed representatives of primary and middle school students said they had been pretested in most subjects, that they were allowed to study topics and use materials that differed from those utilized by classmates, that they were progressing at their own rates, that their work was often checked, and that they were told how they were progressing and what to do next.

On every item except that concerning pre-testing, third graders expressed the most positive perceptions of the extent of individualization, sixth graders were less positive, and sophomores were most negative.

Since the ESY schools were operating at or above capacity in terms of student enrollments, and since overcrowding makes it difficult to individualize learning opportunities, the ESY students were asked if there were 'too many students for the teachers to have time to help you plan work that is just for you.' Significantly, 66 percent of the third grade respondents, 56 percent of the sixth grade respondents, and 81 percent of the tenth grade respondents said 'yes'.

The ESY principals, when interviewed in March 1976, reported that the use of ESY curriculum modules had not had a significant impact on individualization of instruction. "No one really knows how to individualize," said one principal. And sheer numbers of students made it difficult to individualize learning experiences, even for those teachers who felt competent to do so.

Staff Satisfaction With New Curriculum

Teacher Reaction -- 1974 and 1975

During the Summer and Fall of 1974 teachers and principals employed at the ESY schools during those quinmesters were asked to complete questionnaires that gave them a chance to express their opinions regarding many aspects of the new curriculum materials associated with ESY. A detailed analysis of these responses was included in the 1974-75 evaluation report (Banta, et. al., 1975) but the conclusion derived from all the data was that a substantial majority of the staff approved of the new curriculum. In effect, the ESY terminal objective in this area had been met in 1974, thus no new questionnaires containing items similar to those administered in 1974 were distributed to all ESY staff members in subsequent years.

In December 1975 the Curriculum Committee of the ESY evaluation team, composed of Professors Robert Howard, Lester N. Knight, and John R. Ray, prepared a series of questions regarding the curriculum which they asked of a

sample of teachers at each of the ESY schools. The responses to these questions summarized teacher reaction to the curriculum after a year of classroom trial.

Most ESY teachers were familiar with the content of the Knox County system's Instructional Goals and Objectives, at least in their own subject areas. Primary teachers seemed least familiar with the document, perhaps because some of them considered the objectives unrealistic, even inapplicable, at the primary level. There was general agreement at all levels that the objectives represented a step forward in curricular organization for the school system. The faculties seemed to appreciate having some knowledge of system-wide expectations regarding subject area content and student performance. No basic philosophical differences between system goals and individual teachers' goals were detected in the interviews.

Teachers were uniformly pleased to have been given the opportunity to develop the ESY curriculum modules. However, some did question the economics of building an entire new set of curriculum materials, K-12, when other good materials were already available in some areas and might simply have been purchased. Within certain broad guidelines specified by subject area committees, the writer of each module determined the scope of the module and the sequence in which topics were presented within it. Most modules were comprehensive enough to be considered resource units rather than series of daily lesson plans. Module objectives provided guidance for course content which the faculties welcomed, but most teachers supplemented the modules with other materials and methods, and most teachers said they were not able to utilize all suggested activities within a given module. Primary teachers expressed the concern that their modules were too discrete -- too subject-specific -- and hoped the revisions could place more emphasis on integration of subjects (e.g., the relationship of language arts concepts to social studies, science, etc.).

The content of the curriculum modules was determined chiefly by the module writers. In some cases, extensive research was conducted and a variety of current methods and materials was utilized in the module. In other cases, especially at the high school level, teachers who had developed what they considered an effective approach to a topic produced modules which emphasized methods and materials they had validated personally. As one would expect, some teachers were able to find fault with both methods of determining content because what works for one teacher or group of students will not necessarily meet the needs of others. Nevertheless, majorities of middle and high school teachers expressed overall satisfaction with module content, especially after revisions were made at the end of the first year of use. Satisfaction with module content appeared to be directly related to the extent of involvement in module preparation. Primary teachers had not written as large a proportion of their own modules as had middle and high school teachers; consequently, they were more critical of the end products. Several primary teachers had difficulty adapting to the needs of primary pupils modules written by individuals who had had little or no experience at that level.

Performance objectives and suggested learning activities, in that order, were seen by faculties at all levels as the most helpful components of the curriculum modules. Evaluation of pupil performance was considered the weakest feature of most modules. Limited access to library and audio-visual resource materials was seen as a major obstacle to full utilization of instructional strategies suggested in the modules.

When asked about the extent to which individual student learning styles were accommodated in the modules, most teachers pointed to the ideas for small group and large group activities which were present in many modules. The extensive lists of resources in some modules provided options which teachers

could use to individualize assignments. Adaptation of curriculum content to varying levels of academic achievement was ineffectively accomplished or absent in most modules, according to the teachers interviewed. Content of most modules was viewed as adequate for the average student, but weak in providing for the needs of slower, or accelerated, students, or both. Teachers were uniformly skeptical about the possibility of individualizing instruction, regardless of provisions in the modules or in other resources, until reductions in class size were accomplished.

Unquestionably the ESY curriculum modules were considered a major teaching resource by teachers interviewed in December 1975. Most referred to the modules frequently; teachers who wrote modules used them most extensively; but even those who did not use the modules every day had consulted, and been guided by, the sections containing performance objectives.

Just as teachers were pleased to have the opportunity to write the original modules, they also derived satisfaction from their involvement in the revision process. An attempt was made to involve several users of a module, as well as the writer, in the revisions. This procedure was less strictly followed, with resulting criticism, at the primary level. Teachers at all levels felt more time was needed to permit full utilization of users' suggestions; indeed some believed the modules should never be considered complete but should continue to evolve as user experience accumulates.

Teacher Reaction - 1976

During the evaluation coordinator's spring visits to the ESY schools teachers, as well as principals, were interviewed. A total of 25 teachers, including 11 primary, 8 middle school, and 6 FH faculty members, responded to questions about year-round scheduling and the new curriculum. No attempt was made to identify respondents in advance; most of the teachers who happened to

have a free period during the evaluator's visit to each school constituted the sample. In the primary schools kindergarten and third grade teachers were contacted; at the middle schools grades six, seven, and eight were represented by teachers of language arts, social studies, science and mathematics; at the high school the respondents were teachers of social studies, mathematics, and business.

Approximately two-thirds of the teachers interviewed said that they were 'pleased' with the curriculum modules they had used. Not one of the 25 respondents was willing to say that he or she preferred curriculum materials used prior to ESY. Two of the high school teachers said, however, that there had been little change associated with use of the modules since most modules had been based on what FH teachers had been teaching all along. Three of the middle school teachers said they had not used a module. Four primary teachers emphasized that the modules were supplementary materials; they said the suggested learning activities were the most frequently used component of most modules at their schools.

When principals were asked, "In general, how are teachers reacting to the curriculum modules in this second year of use?" all five expressed the opinion that teachers were reacting more positively to use of the modules during the second year than had been the case during the year in which the program was initiated. During 1974-75 many teachers misunderstood the primary purpose of the modules: they thought the modules were to be used as the curriculum guide for their classes rather than as supplements or resource units. This led to frustration in some cases because teachers felt that their freedom to determine what would go on in their classes had been diminished. Some teachers were also frustrated by the vast amount of material contained in each module. They complained that they just could not "cover" all the material in a module.

In-service training provided by central office supervisors and by other teachers who knew how the modules were intended to be used, eventually cleared up the misunderstanding about the purpose of the modules. During the second operational year teachers became more familiar with module content, and more comfortable about using it. Instead of trying to cover all suggested material, most teachers referred to the modules for the objectives and/or student activities they contained, but then they felt free to determine their own course of action in their classrooms.

With the elimination of the fifth or summer quinmester some of the impetus for use of the curriculum modules was to be removed, i.e., no longer would it be necessary to guarantee that certain nine-week segments of courses were non-sequential so that Summer Quin students could be accommodated in a course following a vacation quin. The ESY principals were asked, therefore, what effect the dropping of the ESY plan would have on utilization of the curriculum modules. The principals felt that this would depend largely on the direction supplied by the central office administrators and supervisors. However, if central office personnel continued to support use of the modules, the principals believed that the teachers liked them enough to continue using them. It was pointed out that the curriculum modules were originally designed to be implemented throughout the Knox County system following their field test in the ESY schools. The central office decision to carry out the planned county-wide implementation would thus assure continued use of the modules.

When asked "Will you continue to use the modules next year (after ESY ends), or will you go back to what you were using before, or try something new?" 56 percent of the teacher sample expressed a willingness to continue using the modules. The three middle school teachers who said they had not used modules indicated that they would not use them in the future. But no teacher who had

used modules wanted to give them up entirely. Most said they would continue to consult the modules for direction but would utilize new materials as they became available.

More than half of the teachers consulted said they "had trouble obtaining the instructional materials to accompany the modules." Films were mentioned most often as the source of dissatisfaction. At all three levels teachers complained about films arriving too late for use at the appropriate time. Primary teachers said some of the films were out of date. Coordination of the use of instructional materials was a constant source of concern because the use of modules meant that many teachers were teaching the same content at the same time. Several teachers complained that some of the materials referred to in the modules were available only at the module writer's school, not throughout the County.

Half of the teachers interviewed said that they felt students were using more instructional materials with the new curriculum than they had prior to ESY. Most of the remaining respondents believed the use of modules had not resulted in a significant change in the use of instructional materials. Four of the primary teachers said that more materials would be used if they were easier to obtain.

One of the principal reasons for developing the new curriculum modules in Knox County was to promote individualization of instruction. At the end of the second year of field-testing, however, no principal was able to say that the modules had made a significant impact in this area. Many of the modules did contain alternative materials and learning activities which could be utilized with students at varying ability and achievement levels. Thus the modules could be considered as aids in the process of individualizing student learning programs. But as one principal pointed out, "No one really knows how

to individualize." And the ESY schedule did not significantly reduce the pupil-teacher ratios in the target schools, so sheer numbers of students still constituted a formidable barrier in the pursuit of individualization.

In many high school classes the change to a new module every nine weeks was accompanied by a substantial turnover in the student population, so teachers had to spend a large part of each quinmester just getting to know the new students. Since the teachers did not know their students' characteristics and capabilities until late in the quinmester, they could not competently plan individual learning programs for the large numbers of students assigned to them.

In the first year of ESY some students who had attended the Summer Quin had academic problems during the rest of the year due to a lack of articulation between the summer curriculum and that used during the regular school year. Near the end of the second year of ESY only one third of the teachers interviewed felt this situation had been corrected. At the primary level some success had been achieved by keeping all Summer Quin students together in the same class (or team) during the remainder of the year. Apparently the promise of a fully integrated five quinmester school year had not been realized at the end of the two-year ESY trial.

Addition of Curriculum Materials

ESY administrators had hoped that the new curriculum modules would increase students' use of instructional materials other than textbooks. But the majority of teachers interviewed in 1975 and 1976 did not feel that such an increase had actually occurred. They perceived no real change since ESY began in the quantity of materials they felt they needed to use in their classes, but they described a change in the availability of such materials.

One disadvantage of providing -- via the modules -- some standardization of curriculum content was the creation of a situation in which several teachers

requested the same set of instructional materials -- as suggested in the modules -- at the same time. Early in the 1974-75 academic year librarians had to establish waiting lists for many materials, and teachers of the same subjects made arrangements among themselves to maximize the distribution of the available materials. In December 1975 and May 1976 when samples of ESY teachers were interviewed at their schools, these arrangements for sequencing presentation of topics within subject areas to avoid simultaneous demands for materials had alleviated somewhat the problem that emerged during the first year of ESY operation. Nevertheless it must be noted that limited access to resource materials was still viewed as a major obstacle to full utilization of activities suggested in the modules.

Perhaps reinforcing teachers' perceptions in this area, in March 1976 just 44 percent of all students (59% primary, 52% middle, 21% secondary) and 37 percent of their parents (38% primary, 58% middle, 15% secondary) responded positively to the questionnaire item, "In most subjects are you (is your child) able to use as many tapes films, records, and other learning materials as you (he/she) need to use in order to learn the subject?"

Staff Transfers and Turnover

One obvious indication of staff satisfaction with a new program is any significant increase or decrease in resignations or requests for transfer to other situations within the school system. During the two operational years of the ESY trial no principal or assistant principal at an ESY school resigned or requested a transfer, despite the substantial increase in administrative work load which accompanied the extended schedule. Figure II.8 contains a record of the number of teachers who left ESY schools for one reason or another between September 1, 1971 and August 31, 1976.

FIGURE II.8

NUMBERS OF TEACHERS LEAVING ESY SCHOOLS FOR
VARIOUS REASONS DURING 1971 - 1976

	CBP					FP					CBM					FM					FH				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Transferred		2	2			*			1	1	4	2		1	1	*	3		2			1	3		
Resigned	9	4	7	7	3	*	4	4	5	3	6	7	8	1	2	*	5	3		6	11	7	3		3
Terminated **														1									2	1	
Retired					1		1	1	1		1						2		2						
Leave of Absence	1		2		1					3					2			1		1		1			1
	10	6	11	7	5	*	5	5	7	7	11	9	8	3	5	*	10	4	4	7	11	9	8	1	4

YEAR 1 = 1971-72
2 = 1972-73
3 = 1973-74
4 = 1974-75
5 = 1975-76

* School not in operation in 1971-72
** Dismissed

During 1972-73, the first year all five schools were open, a total of 39 teachers left the ESY schools for one reason or another; during 1973-74 the figure was 36; 22 teachers left in 1974-75, and 28 in 1975-76. Undoubtedly this general downward trend was due principally to labor market constriction: teachers remained on the job because they knew prospects for employment elsewhere were dim. However, even requests for transfer to other situations decreased during the years affected by the ESY trial. In 1972-73 there were eight requests for transfer from teachers in the ESY schools, in 1973-74 there were five, in 1974-75 four, and in 1975-76 two.

Staffing the two summer quinmesters did not pose a problem for personnel administrators. A sufficient number of teachers volunteered to forego their usual summer break and work year-round.

Since the teacher turnover statistics were calculated between September 1 and August 31 each year, the years 1973-74 (which included the 1974 Summer Quin) and 1974-75 should show the impact of ESY most clearly. By September 1, 1975 (beginning of the 1975-76 statistical year) it was clear that ESY would not be continued for a third year, so the slight rise in teacher resignations and requests for leaves of absence which occurred in 1975-76 could not be attributed unequivocally to the effects of extending the school year.

Teacher turnover statistics for so few years do not permit firm conclusions about trends, certainly not about the effects of ESY. However, the direction of the data suggests that teacher turnover decreased and requests for transfer dwindled during the time that ESY was being proposed and implemented. It could be said with certainty that ESY had no significant negative effect on staff morale as indicated by turnover figures.

STUDENT ACHIEVEMENT

Metropolitan Achievement Test Scores for Grades 3, 5, and 8

The 1975-76 ESY evaluation report (Banta, et al., 1976) contains a detailed presentation of the comparisons of Metropolitan Achievement Test scores for grades 3, 5, and 8 at the ESY schools in 1971-72, 1972-73, 1973-74, 1974-75, and 1975-76. Metropolitan scores for 1976-77, which would have shown the impact, if any, of the second year of ESY, were not yet available when this report was written. Thus the presumed effect of ESY on achievement at primary and middle school levels was, of necessity, based on data from just one operational year: 1975-76. Many factors other than ESY scheduling and the new curriculum could have contributed to these effects, but after one year of ESY Metropolitan reading achievement increased slightly while scores in math, science, and social studies declined slightly.

Failing Grades at FH

When the objectives for ESY were proposed, it was thought that the proportion of failing grades to all grades given at FH could be calculated using data stored by Knox County for retrieval via automated processing. However, Knox County's computer facility was not able to supply this information, so the objective had to be abandoned.

College Aptitude Tests

Mushrooming enrollments at FH during the 1970s made it exceedingly difficult to administer a group test of any kind to an entire class of students at the school. There was no room large enough to accommodate a whole class, and if the test was given to students in shifts, class schedules would be disrupted for several days, and security would pose a threat to validity of results. Consequently, intelligence and achievement testing programs were curtailed at the high school during the three years prior to ESY.

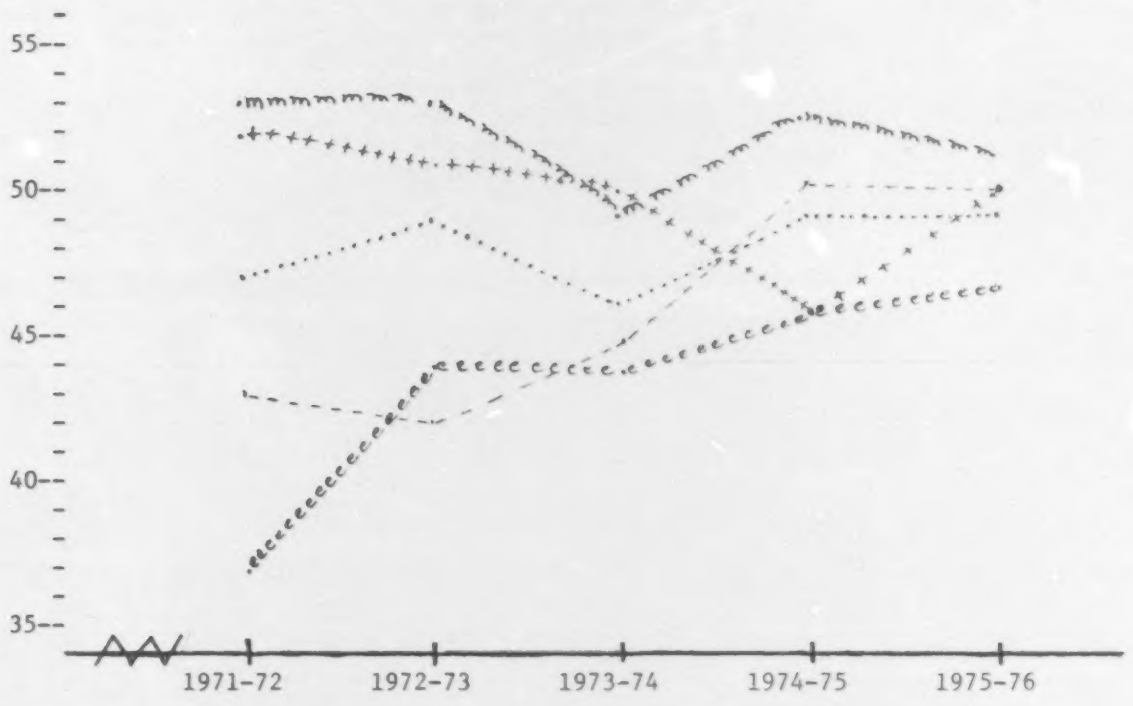
On only one test -- the ACT -- was there a continuous record of scores for comparison over the years of interest: 1971-72, 1972-73, 1973-74, 1974-75, and 1975-76. During those years the groups of Farragut High juniors and seniors who took the test varied little in grade point average: 2.65 was always a close approximation of the actual GPA until 1975-76 when the average was 2.8. The samples of students who took the ACT each spring from 1972 to 1975 appeared to resemble each other closely in terms of school achievement as measured by FH teachers; it is not known whether "grade inflation" or superior ability, or both, caused the increase in GPA for the sample taking the ACT in 1976.

In Figure II.9 the 1971-76 FH ACT scores expressed as percentiles are plotted for the Composite and four subscales: English, Mathematics, Social Studies, and Natural Science. Perhaps the most significant conclusion to be drawn from this presentation is that during a period when achievement test

scores were declining nationally, FH students were holding or increasing their school's percentile rank on the various ACT subtests. Also, the annual range of scores on the subtests narrowed considerably during the period of interest: in 1972 sixteen percentile points separated the highest score (Math-53) from the lowest (English-37), in 1973 the range narrowed to twelve points, for the next two years the range was six points, and by 1976 the range was only four percentile points.

FIGURE II.9

PERCENTILE ACT SCORES FOR FH JUNIORS AND SENIORS 1971-76



LEGEND:
English eeee
Mathematics mmmm
Social Studies ----
Natural Science + + + +
Composite . . . .

If the ESY trial had not been cut short by a year, it would have been possible to compare FH ACT scores for three pre-ESY years with scores for three ESY years. As it happened, the three pre-ESY sets of scores must be compared with those obtained in Spring 1975 and Spring 1976 only. Over this time period FH students posted significant gains in English and social studies as measured by the ACT. English subtest scores climbed from an approximate percentile standing of 41.6 prior to ESY to 46.5. The social studies score increased from 43.3 to 50.

The ACT Composite and subtest scores in Math and Natural Science at FH were relatively stable during the period 1971-72 to 1975-76. Prior to ESY the ACT Composite percentile was approximately 47.3; during the ESY years the Composite score rose slightly to 49. Throughout the years under study the ACT Math score at FH was approximately 51.5. Figure II.9 shows a very gradual slippage in the ACT Natural Science percentile score over the years of interest: from 52 in 1972 to 50 in 1974, then a dip to 46 during the first year of ESY, and a return to 50 during the second year.

The nature of the data available limits the conclusions which can be made about achievement, but the FH ACT scores provide some indication that the revised curriculum associated with ESY certainly did not have a negative effect on student achievement at the high school, and indeed in English and social studies the new curriculum materials may have been particularly effective in promoting achievement.

Parental Approval of Curriculum Effects

As was true for most categories of ESY data, there were no prior measures of parental approval of the effects of school curriculum on their children against which data obtained after ESY began might be compared. Therefore the evaluation plan called for collecting baseline data from parents during the

first year of ESY operation for comparison with another sample of parent opinion obtained during the following year. It was anticipated that the extent of approval would increase as the new curriculum became institutionalized and the rough edges apparent in the first year of operation were smoothed.

In March 1975 a questionnaire was provided for each student in third, sixth, and tenth grades to take home to his or her parents. Approximately one-third of these forms were returned. Responses of this sample of primary, middle, and secondary school parents indicated that majorities of parents at each level were unconvinced that the ESY program's promise had been fulfilled in its first year of operation. Only a third of the parents responding felt that the new curriculum represented an improvement over the curriculum used in the schools in past years. And more than a third of the parents of students who had attended the 1974 Summer Quinmester said their child had experienced problems during the regular academic year as a result of their attendance in the summer. Lack of articulation between the Summer Quin and the other quinmesters created most of the difficulties for students, i.e., scheduling problems at FH, and the necessity of repeating work or catching up in some subjects at the primary and middle schools.

In March 1976 third, sixth, and tenth grade students again were asked to take home parent questionnaires. Approximately 30 percent (40% primary, 26 percent middle, 12 percent high school) of the parents returned completed forms. Responses to general items concerning the new curriculum are recorded in Figure II.10.

In March 1975 just 30 percent of all parents responding to the questions about ESY felt that their child's interest in school had increased over the previous year. A year later almost 70 percent of third, sixth, and tenth grade students said they were "more interested in school <u>this</u> year than <u>last</u>

year", and a majority of their parents had seen this improvement. Perhaps the institutionalization of the ESY curriculum changes contributed to this increase in positive perceptions.

FIGURE II.10

PERCENTAGE OF 'YES' RESPONSES TO GENERAL ITEMS ON CURRICULUM EXPRESSED BY PARENTS OF THIRD, SIXTH, AND TENTH GRADE STUDENTS IN ESY SCHOOLS

	GRADE 3 PARENTS	GRADE 6 PARENTS	GRADE 10 PARENTS
1. Does your child like school more this year than last year?	54	62	48
2. In most subjects is your child able to use as many tapes, films, records, and other learning materials as he/she needs to use in order to learn the subject?	38	58	15
3. Do you like the new lessons and learning activities that the teachers have been using since ESY began?	52	66	27
4. Do you consider the new curriculum to be effective in helping your child learn basic skills: reading, writing, arithmetic?	54	60	33
5. Have those students who went to school last summer (1975 Summer Quin) had any problems with their classes during the regular school year?	33*	35*	50*

* Response of only those parents whose child had attended the 1975 Summer Quin.

Parents of third and tenth graders were slightly less positive than their offspring about the availability of instructional materials. Almost 60 percent of the primary students felt they had access to all the tapes, films, records, etc. they needed in order to learn, but just 38 percent of their parents agreed with them. At the secondary level only 21 percent of the students and 15 percent of their parents were satisfied with the availability of the listed materials.

Middle school students and their parents were in better agreement: 52 percent of the sixth graders and 58 percent of their parents believed the supply of learning materials was sufficient.

Three-fourths of third, sixth, and tenth grade students liked the ESY 'lessons and learning' activities, according to their responses in March 1976. Majorities of third and sixth grade parents also liked the new curriculum materials, but only 27 percent of the FH parent sample responded favorably.

In general, the responses of parents of students who attended the 1975 Summer Quinmester were approximately five percentage points (the range was 2 to 16 points) more positive than the responses of other parents. Nevertheless, a significant proportion of these parents believed their Summer Quin students had 'had problems with their classes during the regular school year.' Third and sixth grade summer parents expressed more negative feelings in this regard than did the third and sixth grade students (see Figure II.5), but at the tenth grade level there was good agreement between students and parents: half of each group said there had been problems. The 1976 'problem' percentages indicated an improvement over 1975 only at the primary level. In 1975, 42 percent of the parents of third graders who had attended the 1974 Summer Quinmester believed their children had had problems during the regular school year, but in 1976 the percentage summer parents indicating the existence of problems declined to 33 percent. In March 1975, 29 percent of the parents of sixth graders who had attended the previous Summer Quin noted that their offspring had encountered problems subsequently, and in March 1976 the corresponding percentage had grown to 35 percent. The increase in problems from 1975 to 1976 was greatest at FH: 39 percent of the summer parents said there were problems in 1975, but by 1976 50 percent of the parents of summer sophomores perceived difficulties.

Scheduling of classes during the 'regular' school year was seen by parents as the biggest problem facing Summer Quin sophomores as a result of their

attendance in the summer, and their offspring agreed. Thirty-six percent of the third grade summer parents who identified problems said "Summer Quin students were behind in some subjects and had to catch up." Twenty-three percent of the third grade summer parents checked the response "Different materials were used in some subjects during the summer, so some teachers had trouble deciding what the Summer Quin students should study." Summer third graders saw as their biggest problem 'making friends in their classes when they came back to school' after a fall vacation. Sixth graders who attended the 1975 Summer Quin and their parents were in close agreement that some "Summer Quin students were ahead in some subjects and had to do some work over again," while other "Summer Quin students were behind in some subjects and had to catch up." All the responses indicated that the integration of the summer quinmester with the other quinmesters had been less than totally successful.

With the exception of an item concerning fall pre-testing, parents of third, sixth, and tenth graders were asked the same questions about individualization of instruction as were their children in March 1976 (see Figures II.6 and II.7 for the questions). In 14 of 21 cases, parents' responses were more negative than their children's, but most of the differences were small -- less than ten percentage points in all except three instances. As was the case with students, the parents of sophomores revealed much more negative perceptions of the extent of individualization than did parents of third and sixth grade students.

Less than one-fourth of all parents surveyed believed their children were 'allowed to skip over things' they already knew. Thirty-six percent of the parents said their youngsters were 'allowed to study extra topics that are not the same as the topics other students are studying.' Over 70 percent of primary and middle school parents felt their children were progressing at their own

rates, but only 36 percent of sophomores' parents expressed a similar opinion. Almost 40 percent of all parents responding felt their children's study materials were differentiated for them.

Majorities of parents at all grade levels were satisfied that students' work was 'often checked' to see if they were meeting expected standards, and that students were subsequently informed of their progress and told what to do next.

Significantly, parents at each of the three levels were within one point of their children's response percentages on the question, "In most subjects do you (does your child) and the teacher(s) plan the work just for you (her/him)?" Twenty-one percent of the third grade parents, eleven percent of sixth grade parents, and four percent of tenth grade parents said 'yes'.

As was the case with students, majorities of parents at all levels believed there were 'too many students for the teacher(s) to have time' to help individual students with their work plans.

C. INSTRUCTIONAL PROGRAM EVALUATION

The process of developing the new curriculum associated with ESY involved writing instructional objectives for each subject area, then developing strategies within the nine-week curriculum packages or modules that would promote student achievement of the objectives. One effect of this process was an increase in standardization of expectations with regard to what teachers would teach and what students would learn. ESY administrators hoped that this standardization would permit principals to monitor teacher and student preformances more readily than had been possible prior to institution of the ESY project.

During the evaluator's visits to the ESY schools, principals were asked if they considered the new instructional program easier to evaluate than previous programs. The principals were unanimous in their opinion that full implementation of the ESY curriculum made it easier than it had been to evaluate the instructional programs in their schools.

The county-wide goals and objectives, and the more specific objectives in the curriculum modules, gave ESY principals 1) guidance concerning the activities being carried out in individual subject areas during the year, and 2) criteria against which to measure student achievement in each subject.

D. STUDENT SCHEDULING

Constructing a class schedule for the school year is a crucial activity for high school students. If the process goes smoothly and most students are able to take the courses they want at times they perceive as optimum or convenient, there is a good chance that the school term will begin with student morale at a high level. On the other hand, if many scheduling problems arise, seeds of dissatisfaction are sown that may grow into significant morale problems later.

The Situation in 1975

In March 1975 an instrument entitled "Reaction to ESY at Farragut High School" was completed by 78 percent of the sophomores and 60 percent of the seniors enrolled at FH at that time. The ESY project had been in operation for the better part of a year, so students had had an opportunity to arrange class schedules for three (or four if they attended the Summer Quinmester) quinmesters.

Since all responses to items about scheduling must have been influenced by this factor, it should be noted that only one-fourth of the FH respondents (28% of the sophomores and 18% of the seniors) felt the school offered all the courses they wanted to take in high school.

When asked the question, "Considering the courses that <u>are</u> available at FH, have you been able to work out a schedule for 1974-75 that allowed you to take every course you really wanted to take?" 48 percent (53% of the sophomores and 37% of the seniors) responded affirmatively. Apparently a majority of FH students were dissatisfied with their class schedules.

Sixty percent of the sophomores who attended the 1974 Summer Quinmester said 'Yes' to the item "Have students who attended the 1974 Summer Quinmester had any special problems scheduling the classes they needed during the other quinmesters?" When asked to "describe these problems" 40 percent wrote a

response, and most said they had had trouble scheduling classes in algebra, English, biology and health.

Several of the Summer '75 sophomores mentioned that the particular quinmester of a course they needed was not offered when they returned from vacation. Those who chose the fall for their vacation quin seemed to have suffered most. These students said they were notified of the need to schedule Winter Quin classes after many of those classes had already been filled by students present during the Fall Quinmester.

Forty-four percent of the FH seniors who attended the 1974 Summer Quin said they had had scheduling problems during the regular school year. English and algebra were most frequently mentioned as the courses involved in scheduling difficulties. Three Summer '74 seniors said they were behind, and thus penalized, in some courses when they returned from their vacation quin. Another mentioned having to do without lunch due to scheduling conflicts.

Parents who responded to a questionnaire sent home with FH sophomores in March 1975 confirmed the opinions of their offspring about scheduling difficulties. Some parents of sophomores who started the year with the Summer Quin expressed the opinion that scheduling problems had made their children feel "punished" for attending the Summer Quin. After a fall vacation some of the summer students returned to find that those students attending school in the fall had already scheduled their classes for the third quin. Some courses were no longer available, thus some of the summer students had to carry less than a full load of academic work. One parent noted that his child had been obliged to schedule a class during his lunch period.

When FH students at all grade levels were questioned about ESY near the end of the 1975 Summer Quin, scheduling problems were still high on the list of complaints about the new program. Students attending the second summer

session were especially dissatisfied with the number and variety of courses offered during that quinmester.

The Situation in 1976

In March 1976, 74 percent of the FH sophomores and 12 percent of their parents responded to questions about scheduling which were included in the opinionaire "Reaction to ESY at Farragut High." These responses indicated that there had been some improvement at the sophomore level in perceptions of scheduling, but the situation was still far from optimum.

Thirty-one percent of the tenth graders, and 48 percent of their parents, were satisfied with course offerings at FH, i.e., they responded affirmatively to the item "Does Farragut High offer all the courses you want to (you feel your child should) take in high school?"

Near the end of the second year of ESY a majority (63%) of FH sophomores and their parents (64%) were able to say 'Yes' when asked "Considering the courses that are available at Farragut, have you (has your child) been able to work out a schedule for 1975-76 that allows you (your child) to take all the courses you (he/she) needed this year?"

Half of the 1975 Summer Quin sophomores and their parents said summer students had had 'problems with their classes' during the regular school year. In a follow-up item which asked "What were those problems?" 43 percent of the summer sophomores and half of their parents identified class scheduling. One student added the comment, "I had no lunch all year." Two other summer students said they had not been able to schedule the second quin of a course sequence begun in the summer.

E. ADMINISTRATIVE STRUCTURE AND PROFESSIONAL DEVELOPMENT*

By the Fall Quinmester of the second year of the new program, administrators and supervisors involved in ESY felt they understood clearly their roles in connection with the program, and they believed they had the competencies required to carry out those roles. They also perceived that they had been given the appropriate authority to accomplish their assignments. During the first year of ESY operation administrators and supervisors reported that their involvement in the new program had changed their jobs in ways that interfered with their other responsibilities, so they had to spend more time at work. During the second year of operation this changed: ways were found to integrate ESY-related responsibilities into existing work assignments so that both could be performed without a substantial increase in work time. Administrators and supervisors derived an even greater sense of satisfaction from their involvement in ESY during the second year than during the first. They believed ESY had improved the school system and should be continued if possible.

Administrators and supervisors had a positive impression of their ESY-related orientation and professional development program. This program was much stronger, however, during 1974-75 than during 1975-76. Development of the new curriculum materials constituted a substantial part of the professional development program for instructional leadership personnel. Supervisors, principals, and teachers worked together on strategies for implementing the materials, and on evaluation and revision of the materials.

The design and implementation of in-service programs for teachers was the responsibility of the principal at each of the five ESY schools. The principals

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* The study on which this brief summary is based was conducted in the fall of 1975 by John T. Lovell, Professor, Department of Educational Administration and Supervision, UTK. Dr. Lovell's full report is included on pages 112-118 of Evaluation of The Knox County Extended School Year Program -- 1975-76.

felt these programs had been effective in providing opportunities for teachers to develop the knowledge, attitudes, and skills they needed to carry out the ESY program.

F. Cost Analysis

George W. Harris and O.K. O'Fallon

Introduction and Limitations

This report is limited to cost comparisons identified with the second operational year (1975-76) of the Knox County Extended School Year Program. It is further limited by the fact that during the 1975-76 school year only the first four quinmesters were operated. The ESY was essentially stopped June 30, 1976. The findings reported here speak by implication to all objectives of the total evaluation of the ESY program. However, discussion of the findings and the conclusions which are based on specific data relating to costs will relate to the original Knox County objective which is stated as follows: "To determine relative costs of this program versus a traditional program." It is reasonable that the focus on cost analysis has implications for cost effectiveness and related to accounting and maintenance.

The analysis used the following data: length of the school year in days; length of the school day by type of school -- primary, middle and high; number of students, unit costs by budget category and combined line items as identified in school system budgets by school, Farragut Area and the Knox County School System. These data were supplied by the Knox County Schools Central Office on form instruments supplied by the evaluators.

The computer program used to analyze the data required that line items from budgets be combined into two broad areas which were designated as direct costs and indirect costs. By definition, direct costs include those monies budgeted for and spent in a specific school, and indirect costs include expenditures budgeted for and spent system-wide. Indirect costs were identified for a specific school by prorating according to the number of contact hours per

year for a given school in relation to the number of contact hours for the Knox County School System. Contact hours per year are defined as follows: number of school days in the school year multiplied by the length of the school day in hours mulitplied by the number of pupils in average daily membership.

Descriptions and Definitions

Six categories of direct costs and ten categories of indirect costs were used to report the data. Direct cost categories and the budget items included under each one are as follows:

Salaries - teachers, principal, clerks in principal's office and teachers' aides.

Heat, Light Power - electric light and power plus heat for building.

Telephone and Telegraph - costs of telephone and telegraph service.

Custodial Services and Supplies - custodial services and custodial supplies.

Maintenance of Buildings - Maintenance of building and supplies for the maintenance of plant.

Indirect cost categories and the budget items included under each are as follows:

Central Administration - total expenses for administration such as board of education, superintendent's salary, county trustee's commission, etc.

Instruction - costs of instruction other than those included under direct costs. These consist of costs identified with consultants or supervisors, substitute teachers, psychological personnel, instructional clerks to consultants or supervisors, other salaries for instruction, travel expenses for system-wide teachers, travel expenses for home-bound teachers, travel expenses for vocational teachers, travel expenses for other instructional personnel, consultant fees and in-service, other contracted services, teaching supplies, other supplies for instruction, textbooks purchased, binding and repair of textbooks, school library books, periodicals and newspapers, audio-visual materials, other school library expenses, other materials for instruction, miscellaneous instructional expenses, materials clerk's salary and other clerical assistants' salaries.

Capital Outlay and Clearing Accounts - remodeling of buildings, renovation of buildings, regular instructional equipment, equipment for attendance and health services, professional services for equipment,

other equipment, amounts paid into sinking funds for bonds and interest and total clearing accounts.

Attendance and Health - total expenditures for attendance services and total expenditures for health services.

Operation of Plant - excluded are costs included in direct costs but included are other salaries for plant operation, other contracted services for plant operation, supplies for operation of vehicles and repair of equipment.

Maintenance - costs not considered a part of direct costs and including materials and repair parts for plant maintenance, instructional equipment, other expenses for plant maintenance, salaries for upkeep of grounds, salaries for repair of buildings and salary for plant supervisor.

Fixed Charges - total fixed charges including contributions to Social Security System, contributions to State Retirement compensation insurance, boiler insurance, premiums on fidelity bonds, etc.

Food Services - total expenditures for food services including salaries, travel, hauling, contracted services and preparation equipment.

Transportation - total expenditures for pupil transportation including contracts and miscellaneous expenses.

Buildings and Sites - included under direct costs.

Two additional explanations are important to understand the study: (1) the school day used as part of unit cost varies with school level. Primary schools are scheduled with six-hour days, middle schools are maintained with six and one-half hour days, while the high school operates on a seven-hour day and (2) the inflation factor used to adjust cost is a three-year average covering the months of July 1973 through June 1976 and is 9.07 percent. It was calculated by and provided through the Center for Business and Economic Research, University of Tennessee, Knoxville

Cost Comparisons

The analysis and discussion of the data displayed in Figures II.12 through II.21 centers around average unit costs for the three-year period 1971-1972 and 1973-74 compared to the unit costs for 1975-76, which is the second operational year for the Extended School Year Program in Knox County, Farragut area and

compared to a two-year average for the years 1974-75 and 1975-76. The comparisons are expressed as percents and are corrected in the last column of each table for inflation. The summary Figures II.22 and II.23 will be analyzed in terms of total change by school as shown in the last column which has been adjusted for inflation, and should give cost inference for the Farragut area. Emphasis in analysis will be cost changes beyond those identified with inflation and which can reasonably be attributed to new program requirements.

Farragut High School

Farragut High School is the only secondary school in the area. It operated in an "old" building which had to be air-conditioned to accommodate the summer portion of the quinmester schedule throughout the ESY program. Figures II.12 and II.13 give a breakdown of costs into categories and sub-categories identified with direct and indirect costs for both the operating year 1975-76 and an average of 1974-75 and 1975-76.

Direct costs as shown in Figures II.12 and II.13 are those costs specifically defined for Farragut High School. Total unit costs for 1975-76 compared with the three-year average increased thirty percent when corrected for inflation. The gross change, without corrections for inflation, was from $.35 per unit to $.49 (see Figure II.12). The increased costs which influenced the change were identified with salaries, custodial services and maintenance. It is interesting that three elements of direct costs, heat, light and power, telephone and telegraph, and building and sites were actually reduced below the three-year average when corrected for inflation. It seems probable that the 130 percent increase, corrected, actually relates to the Extended School Year operation at Farragut High School.

For the three year average (1974-1976) total direct costs (with the adjustment for inflation) increased 27 percent. Major increases (without

FIGURE 11.12

COST COMPARISON 1971-1974 AVERAGE TO OPERATIONAL 1975-76

Extended School Year Project

Farragut High School

School	Cost Definitions	Three Yr. Average No. Of Students	Three Yr. Average Contact Hrs./Yr.	Three Year Average Total Costs	Three Yr. Average Unit Cost	1975-76 No. of Students	1975-76 Contact Hrs./Yr.	1975-76 Total Costs	1975-76 Unit Cost	Percent 1975-76 is of 3 yr. Av.	Col. 10 Adjusted For Inflation*
Farragut High School	Direct Costs	1,240	1,543,486			1,325	1,918,823.				
	Salaries - Tchrs., Principals, Clerks & Aides			$471,944	$ .305			$826,985	$ .433	142	133
	Heat, Light & Power			14,396	.009			14,397	.008	89	80
	Telephone & Telegraph			1,705	.001			1,526	.001	100	91
	Custodial Services & Supplies			22,454	.015			50,995	.027	180	171
	Buildings and Sites			21,385	.014			21,385	.011	79	70
	Maintenance of Buildings			8,911	.006			17,626	.009	150	141
	Total Direct Costs			$540,799	.350			$932,914	.488	139	130
	Indirect Costs										
	Central Administration			$ 20,833	.013			$ 26,357	.014	108	99
	Instruction			84,457	.055			129,031	.068	124	115
	Capital Outlay & Clearing Accts.			65,890	.043			90,304	.047	109	100
	Attendance & Health Services			1,661	.002			3,973	.002	100	89
	Operation of Plant			3,086	.002			3,146	.002	100	89
	Maintenance			15,859	.010			33,861	.018	180	171
	Fixed Charges			7,204	.005			22,235	.012	240	231
	Food Services			8,253	.004			11,776	.006	150	141
	Transportation			60,966	.039			111,531	.058	149	140
	Building & Sites			- 0 -	- 0 -			- 0 -	- 0 -	- 0 -	- 0 -
	Total Indirect Costs			$267,110	.173			$452,213	.235	136	127
	Final Total Costs			$807,909	.523			$1,365,127	.714	137	128

* Inflation factor of 9.07 percent for 3 yr. period, July 1973 through June 1976, was provided by Center of Business and Economic Research, University of Tennessee, Knoxville. As used in last column it was rounded to 9 percent.

FIGURE II.13

COST COMPARISON 1971-1974 AVERAGE TO 1974-75 AND 1975-76 AVERAGE

Extended School Year Project

Farragut High School

School	Cost Definitions	Three Yr. Average No. Of Students	Three Yr. Average Contact Hrs./Yr.	Three Year Average Total Costs	Three Yr. Average Unit Cost	1974-76 Av. No. of Students	1974-76 Av. Contact Hrs./Yr.	1974-76 Av. Total Costs	1974-76 Av. Unit Costs	% 1974-76 Av. is of 3 yr. Av.	Col. 10 Adjusted For Inflation*
Farragut High School	Direct Costs	1,360	1,345,486			1,482	1,856,946				
	Salaries - Tchrs., Principals, Clerks & Aides			$471,944	$ .305			$771,905	$ .416	136	127
	Heat, Light & Power			14,396	.009			18,683	.010	111	102
	Telephone & Telegraph			1,705	.001			1,646	.001	100	91
	Custodial Services & Supplies			22,454	.015			41,563	.022	147	138
	Buildings and Sites			21,385	.014			21,385	.012	86	77
	Maintenance of Buildings			8,915	.006			30,612	.016	267	238
	Total Direct Costs			$540,799	.350			$885,402	.477	136	127
	Indirect Costs										
	Central Administration			$ 20,833	.013			$ 25,786	.014	108	99
	Instruction			84,457	.055			124,785	.067	122	113
	Capital Outlay & Clearing Accts.			65,890	.043			89,014	.048	112	103
	Attendance & Health Services			1,661	.002			3,499	.002	100	91
	Operation of Plant			3,086	.002			3,125	.002	100	91
	Maintenance			15,859	.010			32,370	.017	170	161
	Fixed Charges			7,204	.005			22,703	.012	240	231
	Food Services			6,253	.004			10,082	.006	150	141
	Transportation			60,966	.039			181,938	.054	138	129
	Building & Sites			- 0 -	- 0 -			- 0 -	- 0 -	- 0 -	- 0 -
	Total Indirect Costs			$267,110	.179			$513,211	.333	186	178
	Final Total Costs			$807,909	.523			$1,398,634	.699	134	125

* Inflation factor of 9.07 percent for 3 yr. period, July 1973 through June 1976, was provided by Center of Business and Economic Research, University of Tennessee, Knoxville. As used in last column it was rounded to 9 percent.

correction for inflation) were Salaries at 36 percent; Custodial Services and Supplies at 47 percent; and Maintenance of Buildings at 167 percent. However, it must be noted that Heat, Light and Power costs increased only 2 percent when corrected for inflation. Also it must be taken into consideration that when the correction for inflation was made Building and Sites costs were reduced to 77 percent while Telephone and Telegraph costs were reduced to 91 percent of the previous years.

The previously mentioned overall increase of 27 percent relates to the Extended School Year operations (1974-1976) at Farragut High School.

Indirect costs, which are prorated from school system costs, show increases in indirect costs of instruction, indirect costs of maintenance, fixed charges, food services, transportation and operation of plant for 1975-76 and the two-year average 1974-76. There were little if any cost increases related to central administration, capital outlay and clearing accounts and attendance and health services during 1975-76 and the two year average, 1974-76. It is fair to assume that these were cost areas within which the limits were set through the budget.

The increase in total costs was found to be 28 percent for 1975-76 and 35 percent for the two-year average when adjusted for inflation. If Farragut High School served its share of the students enrolled in the extended school year the cost increase is understandably related to this program.

Farragut Middle School

Farragut Middle School is represented by Figures II.14 and II.15. These tables indicate both direct and indirect costs during the three-year average (school years 1971-72 and 1973-74) and the 1975-76 school year, and the two-year average, 1974-76 which were the years of operation of the five quinmester plan.

FIGURE 11.14

COST COMPARISON 1971-74 AVERAGE TO OPERATIONAL 1975-76

Extended School Year Project

Farragut Middle School

School	Cost Definitions	Three Yr. Average No. Of Students	Three Yr. Average Contact Hrs./Yr.	Three Yr. Average Total Costs	Three Yr. Average Unit Cost	1974-76 Av. No. Of Students	1974-76 Av. Contact Hrs./Yr.	1974-76 Av. Total Costs	1974-76 Av. Unit Cost	% 1974-76 Av. is of 3 yr. Av.	Col. 10 Adjusted For Inflation*
Farragut Middle School	Direct Costs	838	993,440			1,052	1,234,082				
	Salaries - Tchrs., Principals, Clerks & Aides			$302,822	$ .304			$381,479	$ .312	103	94
	Heat, Light & Power			14,060	.014			32,178	.026	186	177
	Telephone & Telegraph			683	.001			819	.001	100	91
	Custodial Services & Supplies			17,786	.018			34,769	.028	156	147
	Building and Sites			12,522	.013			12,522	.010	77	68
	Maintenance of Buildings			5,268	.005			21,343	.017	340	321
	Total Direct Costs			$352,340	.355			$482,521	.394	111	102
	Indirect Costs										
	Control Administration			$ 13,403	.013			16,994	.014	108	99
	Instruction			54,283	.055			82,261	.067	122	113
	Capitol Outlay & Clearing Accts.			42,351	.043			58,655	.048	112	103
	Attendance & Health Services			1,709	.002			2,279	.002	100	91
	Operation of Plant			1,984	.002			2,059	.002	100	91
	Maintenance			10,215	.010			21,344	.017	170	161
	Fixed Charges			4,653	.005			15,000	.012	240	231
	Food Services			4,020	.004			7,181	.006	150	141
	Transportation			39,098	.039			66,699	.054	138	129
	Building & Sites			- 0 -	- 0 -			- 0 -	- 0 -	- 0 -	- 0 -
	Total Indirect Costs			$171,715	.173			$272,471	.221	129	121
	Final Total Costs			$524,055	$ .528			$754,994	.617	117	108

* Inflation factor of 9.07 percent for 3 yr. period, July 1973 through June 1976, was provided by Center of Business and Economic Research, University of Tennessee, Knoxville. As used in last colum it was rounded to 9 percent.

FIGURE II.15

COST COMPARISON 1971-74 AVERAGE TO 1974-75 AND 1975-76 AVERAGE

Extended School Year Project

Farragut Middle School

School	Cost Definitions	Three Yr. Average No. Of Students	Three Yr. Average Contact Hrs./Yr.	Three Yr. Average Total Costs	Three Yr. Average Unit Cost	1975-76 No. of Students	1975-76 Contact Hrs./Yr.	1975-76 Total Costs	1975-76 Unit Cost	Percent 1975-76 is of 3 yr. Av.	Col. 10 Adjusted For Inflation*
Farragut Middle School	Direct Costs	859	993,469			1,105	1,285,667				
	Salaries - Tchrs., Principals, Clerks & Aides			$302,022	$ .304			$418,696	$ .326	107	98
	Heat, Light & Power			14,060	.014			40,473	.031	221	212
	Telephone & Telegraph			683	.001			821	.001	100	91
	Custodial Services & Supplies			17,766	.018			34,531	.027	150	141
	Building and Sites			12,522	.013			12,522	.010	77	68
	Maintenance of Buildings			5,268	.005			34,692	.027	540	511
	Total Direct Costs			$352,340	.355			$541,733	.421	119	110
	Indirect Costs										
	Central Administration			$ 13,400	.013			17,734	.014	108	99
	Instruction			54,283	.055			86,817	.068	124	115
	Capital Outlay & Clearing Accts.			42,351	.043			60,759	.047	109	100
	Attendance & Health Services			1,709	.002			2,673	.002	100	91
	Operation of Plant			1,984	.002			2,117	.002	100	91
	Maintenance			10,215	.010			22,783	.018	180	171
	Fixed Charges			4,653	.005			14,960	.012	240	231
	Food Services			4,020	.004			7,923	.006	150	141
	Transportation			39,058	.039			75,042	.058	149	140
	Building & Sites			- 0 -	- 0 -			- 0 -	- 0 -	- 0 -	- 0 -
	Total Indirect Costs			$171,713	.173			$290,808	.226	131	122
	Final Total Costs			$524,053	$ .528			$832,541	$ .648	123	114

* Inflation factor of 9.07 percent for 3 yr. period, July 1973 through June 1976, was provided by Center of Business and Economic Research, University of Tennessee, Knoxville. As used in last colum it was rounded to 9 percent.

Areas in direct costs which show a percentage increase in cost beyond the nine percent inflation rate for both 1975-76 and the two-year average 1974-76 are:

1. Heat, Light & Power
2. Custodial Services
3. Maintenance of Buildings

The 531 percent increase, corrected for inflation, in the category of maintenance of buildings for 1975-76 should be noted because the 1974-76 average decreased to 331 percent and indicates that maintenance increases do not identify wholly with ESY.

The total direct costs per unit for Farragut Middle School showed a 10 percent increase for 1975-76 and only a two percent increase for the average of 1974-75 and 1975-76 when corrected for the inflation factor of 9 percent.

Indirect costs for Farragut Middle School which indicated a rise beyond 100 percent when corrected for inflation for 1975-76 and the average of 1974-75 and 1975-76 were:

1. Instruction
2. Maintenance
3. Fixed Charges
4. Food Services
5. Transportation

Farragut Middle School's total direct costs showed a 22 percent increase in 1975-76 and a 20 percent increase for the 1974-76 two-year average when corrected for inflation. Final total costs (both direct and indirect indicate a 14 percent increase for 1975-76 and an 8 percent increase for the average of 1974-76.

Farragut Primary School

Farragut Primary School is one of two K-3 schools in the ESY Farragut area. The building is new and air-conditioned. Figures II.16 and II.17 show the breakdown of costs into categories and sub-categories embracing direct

FIGURE II.16

COST COMPARISON 1971-1974 AVERAGE TO OPERATIONAL 1975-76

Extended School Year Project

Farragut Primary School

School	Cost Definitions	Three Yr. Average No. Of Students	Three Yr. Average Contact Hrs./Yr.	Three Yr. Average Total Costs	Three Yr. Average Unit Costs	1975-76 No. Of Students	1975-76 Contact Hrs./Yr.	1975-76 Total Costs	1975-76 Unit Cost	Percent 1975-76 As of 3 yr. Av.	Col. 10 Adjusted For Inflation*
Farragut Primary School	Direct Costs	573	630,738			637	698,938				
	Salaries - Tchrs., Principals, Clerks & Aides			$173,249	$ .284			$338,316	$ .376	132	123
	Heat, Light & Power			15,761	.026			19,477	.022	85	78
	Telephone & Telegraph			943	.002			793	.001	50	45
	Custodial Services & Supplies			17,803	.029			24,737	.028	97	88
	Maintenance of Buildings			127,015	.208			127,015	.141	68	59
	Total Direct Costs			$336,093	.551			$521,442	.580	105	96
	Indirect Costs										
	Central Administration			8,016	.013			12,399	.018	108	99
	Instruction			32,026	.034			60,702	.068	126	117
	Capital Outlay & Clearing Accts.			26,722	.044			42,483	.047	107	98
	Att. Visits & Health Services			1,071	.002			1,869	.002	100	91
	Operation of Plant			1,425	.002			1,450	.002	100	91
	Maintenance			4,726	.008			15,550	.018	225	216
	Fixed Charges			2,320	.004			11,400	.012	300	291
	Food Services			2,503	.004			5,540	.006	150	141
	Transportation			25,411	.042			52,569	.058	138	129
	Building & Sites			- 0 -	- 0 -			- 0 -	- 0 -	- 0 -	- 0 -
	Total Indirect Costs			$104,824	.172			$203,333	.238	138	129
	Final Costs			$440,918	.723			$724,774	.826	111	102

* Inflation factor of 9.07 percent for 3 yr. period, July 1973 through June 1976, was provided by Center of Business and Economic Research, University of Tennessee, Knoxville. As used in last column it was rounded to 9 percent.

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FIGURE II.17

COST COMPARISON 1971-1974 AVERAGE TO 1974-75 AND 1975-76 AVERAGE

Extended School Year Project

Farragut Primary School

School	Cost Definitions	Three Yr. Average No. Of Students	Three Yr. Average Contact Hrs./Yr.	Three Yr. Average Total Costs	Three Yr. Average Unit Costs	1974-75 Av. No. Of Students	1974-76 Av. Contact Hrs./Yr.	1974-76 Av. Total Costs	1974-76 Av. Unit Cost	% 1974-76 Av. is of 3 yr. Av.	Col. 10 Adjusted For Inflation*
Farragut Primary School	Direct Costs	572	609,738			792	853,830				
	Salaries - Tchrs., Principals, Clerks & Aides			$173,249	$ .284			$304,035	$ .356	125	116
	Heat, Light & Power			15,761	.026			17,412	.020	77	68
	Telephone & Telegraph			943	.002			791	.001	50	41
	Custodial Services & Supplies			17,803	.029			21,825	.026	90	81
	Buildings and Sites			127,015	.208			127,015	.149	72	63
	Maintenance of Buildings			1,322	.002			8,115	.009	450	441
	Total Direct Costs			$336,093	.551			$479,115	.561	102	93
	Indirect Costs										
	Central Administration			8,018	.013			11,654	.014	108	99
	Instruction			32,626	.054			57,384	.067	124	115
	Capital Outlay & Clearing Accts.			26,722	.044			40,915	.048	109	100
	Attendance & Health Services			1,071	.002			1,550	.002	100	91
	Operation of Plant			1,425	.002			1,436	.002	100	91
	Maintenance			4,725	.008			14,990	.017	213	204
	Fixed Charges			2,323	.004			10,462	.012	300	291
	Food Services			2,303	.004			5,010	.006	150	141
	Transportation			25,441	.042			46,536	.055	131	122
	Building & Sites			- 0 -	- 0 -			- 0 -	- 0 -	- 0 -	- 0 -
	Total Indirect Costs			$104,674	.172			$190,077	.223	130	121
	Final Costs			$440,918	.723			$665,192	.784	108	99

* Inflation factor of 9.07 percent for 3 yr. period, July 1973 through June 1976, was provided by Center of Business and Economic Research, University of Tennessee, Knoxville. As used in last column it was rounded to 9 percent.

and indirect costs for the 1975-76 school year and the average of 1974-75 and 1975-76.

Direct costs as shown in Figures II.16 and II.17 are those costs specifically defined for Farragut Primary School and so budgeted. It is interesting to note that only two direct cost sub-categories exceed 100 percent of the two-year average after adjustment for inflation during 1975-76 and the average of 1974-75 and 1975-76.

The 23 percent increase, adjusted for inflation, in salaries in 1975-76 and the 16 percent increase for the average of 1974-75 and 1975-76 relates to the added time needed to make ESY operate. The large increases in the low-cost item of maintenance of buildings could relate, for both 1975-76 and the average of 1974-76, to the added use of air conditioning and extra maintenance needed. Other direct cost sub-categories were seemingly maintained at or below the 100 percent level by budget allocation. Total direct costs when adjusted for inflation in 1975-76 were 96 percent and for the average of 1974-75 and 1975-76 were 93 percent of the three-year average. A reasonable conclusion based on these facts could be that the ESY program at Farragut Primary School was implemented without extra cost.

Five sub-categories of indirect costs, when identified with Farragut Primary School and adjusted for inflation, exceeded the 100 percent level of the three-year average for 1975-76 and the two-year average of 1974-75 and 1975-76. These were as follows:

1. Instruction
2. Maintenance
3. Fixed Charges
4. Food Services
5. Transportation

The sub-categories which showed unit costs at or below 100 percent, when adjusted for inflation, of the three-year average for both 1975-76 and the

average of 1974-75 and 1975-76 were:

1. Central Administration
2. Capital Outlay & Clearing Accounts
3. Attendance and Health Services
4. Operation of Plant

Total indirect costs, when corrected for inflation, showed an increase of 22 percent in 1975-76 and 21 percent when 1974-75 and 1975-76 were averaged. These increases reflect system-wide increases rather than those associated only with Farragut Primary School. Total costs for this school, when adjusted for inflation, show a slight increase (two percent) in 1975-76 and a slight decrease (minus one percent) when the two years, 1974-75 and 1975-76, are averaged. Farragut Primary School unit costs, if one recognizes inflation, did not reflect any important cost increases which could be attributed to the Extended School Year program.

Cedar Bluff Middle School

Figures II.18 and II.19 illustrate Cedar Bluff Middle School's direct and indirect cost during the three year average(school years 1971-74) compared to operational 1975-76. Also shown is the 1971-74 average to the 1974-76 coverage.

Comparisons of the 1971-74 average to the operational year, 1975-76 show direct cost increases (after inflation adjustments) in the following areas:

1. Maintenance of Buildings at 391 percent
2. Heat, Light & Power at 71 percent
3. Salaries at 45 percent
4. Custodial Services & Supplies at 36 percent

Direct cost items showing a decrease (after inflation adjustments) were:

1. Telephone & Telegraph at 9 percent
2. Building & Sites at 2 percent

Total direct costs in this area had an increase of 27 percent. Indirect costs involving the comparisons of the 1971-74 average to operational year

FIGURE 11.18

COST COMPARISON 1971-74 AVERAGE TO OPERATIONAL 1975-76

Extended School Year Project

Cedar Bluff Middle School

School	Cost Definitions	Three Yr. Average No. Of Students	Three Yr. Average Contact Hrs./Yr.	Three Yr. Average Total Costs	Three Yr. Average Unit Cost	1975-76 No. of Students	1975-76 Contact Hrs./Yr.	1975-76 Total Costs	1975-76 Unit Cost	Percent 1975-76 is of 3 yr. Av.	Col. 10 Adjusted For Inflation*
Cedar Bluff Middle	Direct Costs	1,183	1,368,949			1,184	1,284,504				
	Salaries - Tchrs., Principals, Clerks & Aides			$365,644	$ .267			$527,530	$ .411	154	145
	Heat, Light & Power			19,891	.015			34,663	.027	180	171
	Telephone & Telegraph			1,005	.001			1,282	.001	100	91
	Custodial Services & Supplies			30,239	.022			40,571	.032	145	136
	Building and Sites			318,112	.232			318,112	.248	107	98
	Maintenance of Buildings			5,732	.004			25,928	.020	500	491
	Total Direct Costs			$740,623	.541			$948,086	.738	136	127
	Indirect Costs										
	Central Administration			14,501	.014			$ 17,718	.014	100	91
	Instruction			74,782	.055			86,738	.068	124	115
	Capital Outlay & Clearing Accts.			58,342	.043			60,706	.047	109	100
	Attendance & Health Services			1,344	.002			1,671	.002	100	91
	Operation of Plant			2,739	.002			2,115	.002	100	91
	Maintenance			14,158	.010			22,762	.018	180	171
	Fixed Charges			4,509	.003			14,947	.012	240	231
	Food Services			5,543	.004			7,916	.006	150	141
	Transportation			53,737	.039			74,974	.058	149	140
	Building - Sites			- 0 -	- 0 -			- 0 -	- 0 -	- 0 -	- 0 -
	Total Indirect Costs			$236,654	.173			$290,543	.226	131	122
	Final Total Costs			$977,279	.714			$1,238,631	.964	135	126

* Inflation factor of 9.07 percent for 3 yr. period, July 1973 through June 1976, was provided by Center of Business and Economic Research, University of Tennessee, Knoxville. As used in last column it was rounded to 9 percent.

FIGURE II.19

COST COMPARISON 1971-74 AVERAGE TO 1974-75 AND 1975-76 AVERAGE

Extended School Year Project

Cedar Bluff Middle School

School	Cost Definitions	Three Yr. Average No. Of Students	Three Yr. Average Contact Hrs./Yr.	Three Yr. Average Total Costs	Three Yr. Average Unit Cost	1974-76 Av. No. Of Students	1974-76 Av. Contact Hrs./Yr.	1974-76 Av. Total Costs	1974-76 Av. Unit Cost	% 1974-76 Av. to 3 yr. Av.	Col. 10 Adjusted For Inflation*
						1,280	1,365,618				
Cedar Bluff Middle	Direct Costs	1,183	1,368,949								
	Salaries - Tchrs., Principals, Clerks & Aides			$365,644	$ .267			$301,483	$ .339	134	125
	Heat, Light & Power			19,891	.015			32,964	.021	140	131
	Telephone & Telegraph			1,005	.001			1,184	.001	100	91
	Custodial Services & Supplies			30,236	.022			36,435	.026	116	109
	Building and Sites			318,113	.232			318,113	.228	98	89
	Maintenance of Buildings			5,732	.004			11,372	.024	400	391
	Total Direct Costs			$740,623	.541			$833,534	.647	122	113
	Indirect Costs										
	General Administration			18,501	.014			$ 19,394	.014	100	91
	Instruction			74,762	.055			93,733	.067	122	113
	Capital Outlay & Clearing Accts.			38,342	.043			47,065	.048	112	103
	Attendance & Health Services			2,344	.002			2,557	.002	100	91
	Operation of Plant			2,739	.002			2,334	.002	100	91
	Maintenance			14,158	.010			24,283	.017	170	161
	Fixed Charges			6,509	.005			17,221	.012	240	231
	Food Services			5,543	.004			8,132	.006	150	141
	Transportation			53,737	.039			73,311	.054	138	129
	Building & Sites			- 0 -	- 0 -			- 0 -	- 0 -	- 0 -	- 0 -
	Total Indirect Costs			$136,634	.173			$309,951	.271	111	102
	Final Total Costs			$977,279	.714			$1,233,525	.884	124	115

* Inflation factor of 9.07 percent for 3 yr. period, July 1973 through June 1976, was provided by Center of Business and Economic Research, University of Tennessee, Knoxville. As used in last column it was rounded to 9 percent.

1975-76 that showed an increase (after inflation adjustment) were:

1. Fixed Charges at 131 percent
2. Maintenance at 71 percent
3. Food Services at 41 percent
4. Transportation at 40 percent
5. Instruction at 15 percent

Total indirect costs had an increase of 22 percent. Total final costs (direct and indirect) had an increase of 26 percent.

Indirect costs which showed decreases were central administration, attendance and health services, and operation of plant, each at a 9 percent drop. Capital Outlay and Clearing Accounts indicated neither increase nor decrease.

In comparing costs for the 1971-74 average to the 1974-76 average, the following direct costs showed increases (after inflation adjustments):

1. Maintenance of Buildings at 491 percent
2. Heat, Light and Power at 51 percent
3. Salaries at 25 percent
4. Custodial Services & Supplies at 9 percent

Decreases (after inflation adjustments) in direct cost areas were as follows:

1. Telephone & Telegraph at 9 percent
2. Building & Sites at 11 percent

Total direct costs in this area had an increase of 13 percent.

Indirect costs which illustrated an increase (after inflation adjustments) were:

1. Fixed Charges at 131 percent
2. Maintenance at 61 percent
3. Food Services at 41 percent
4. Transportation at 29 percent
5. Instruction at 13 percent
6. Capital Outlay & Clearing Accounts at 3 percent

Decreases (after inflation adjustment) involving indirect costs were central administration, attendance and health services, and operation of plant, all at 9 percent.

Total indirect costs had an increase of 19 percent. Final total costs (direct and indirect) showed an increase (after inflation adjustment) of 15 percent.

Cedar Bluff Primary

Cedar Bluff Primary School's direct and indirect costs are represented in Figures II.20 and II.21. These costs represent a comparison of the 1971-74 average to the 1974-76 average of the Extended School Year Project.

Also, these figures indicate a cost comparison of the school years 1971-74 average to the operational costs of the 1975-76 school year.

In comparing the 1971-74 average to the operational year 1975-76, direct costs indicating a marked increase (after adjustment for inflation) are:

1. Maintenance and Buildings at 391 percent
2. Salaries at 24 percent
3. Heat, Light and Power at 12 percent.

Custodial services and supplies had only a 1 percent increase. Direct costs showing a decrease (after adjustment for inflation) were telephone and telegraph at a drop of 9 percent and building and sites at a 29 percent drop. Total direct costs increased at 6 percent.

Indirect costs showing increases (after inflation adjustment) were led by fixed charges at 131 percent, followed by maintenance, food services, transportation and instruction. Decreases in the area of indirect costs were led by capital outlay and clearing accounts, plus attendance and health services. Both items were at the 8 percent level. Central administration had a reduction of 1 percent.

Total indirect costs increased at 22 percent, while final total costs (direct and indirect) increased at 10 percent.

In viewing Cedar Bluff Primary School concerning the cost comparison of the 1971-74 average to the 1974-75 average, the following information was obtained.

FIGURE II.20

COST COMPARISON 1971-74 AVERAGE TO OPERATIONAL 1975-76

Extended School Year Project

Cedar Bluff Primary School

School	Cost Definitions	Three Yr. Average No. Of Students	Three Yr. Average Contact Hrs./Yr.	Three Yr. Average Total Costs	Three Yr. Average Unit Cost	1975-76 No. of Students	1975-76 Contact Hrs./Yr.	1975-76 Total Costs	1975-76 Unit Cost	Percent 1975-76 is of 3 yr. Av.	Col. 10 Adjusted For Inflation*
Cedar Bluff Primary	Direct Costs	971	1,836,814			1,199	1,387,734				
	Salaries - Tchrs., Principals, Clerks & Aides			$313,439	$ .302			$318,531	$ .403	133	124
	Rent, Light & Power			29,477	.028			44,408	.034	121	113
	Telephone & Telegraph			943	.001			1,147	.001	100	91
	Custodial Services & Supplies			31,078	.030			27,872	.022	110	101
	Buildings and Sites			190,737	.184			190,737	.148	80	71
	Maintenance of Buildings			1,586	.002			12,183	.010	500	491
	Total Direct Costs			$557,260	.537			$795,901	.618	115	106
	Indirect Costs										
	Central Administration			$ 13,988	.013			$ 17,762	.014	108	99
	Instruction			36,725	.035			86,956	.068	124	115
	Capital Outlay & Clearing Accts.			44,144	.043			60,857	.047	109	100
	Attendance & Health Services			1,785	.002			2,678	.002	100	91
	Operation of Plant			2,052	.002			2,139	.002	100	91
	Maintenance			10,736	.010			22,819	.018	180	171
	Fixed Charges			4,861	.005			14,944	.012	240	231
	Food Services			4,192	.004			7,936	.006	150	141
	Transportation			40,734	.039			73,162	.058	149	140
	Building & Sites			- 0 -	- 0 -			- 0 -	- 0 -	- 0 -	- 0 -
	Total Indirect Costs			$179,236	.171			$291,372	.231	131	122
	Final Total Costs			$736,496	.710			$1,087,174	.844	119	110

* Inflation factor of 9.07 percent for 3 yr. period, July 1973 through June 1976, was provided by Center of Business and Economic Research, University of Tennessee, Knoxville. As used in last column it was rounded to 9 percent.

FIGURE 11.21

COST COMPARISON 1971-74 AVERAGE TO 1974-75 AND 1975-76 AVERAGE

Extended School Year Project

Cedar Bluff Primary School

School	Cost Definitions	Three Yr. Average No. Of Students	Three Yr. Average Contact Hrs./Yr.	Three Yr. Average Total Costs	Three Yr. Average Unit Cost	1974-76 Av. No. of Students	1974-76 Av. Contact Hrs./Yr.	1974-76 Av. Total Costs	1974-76 Av. Unit Cost	% 1974-76 Av. to of 3 yr. Av.	Col. 10 Adjusted For Inflation*
Cedar Bluff Primary	Direct Costs	971	1,836,814			1,186	1,273,227				
	Salaries - Tchrs., Principals, Clerks & Aides			$313,439	$ .382			$473,501	$ .372	123	114
	Heat, Light & Power			29,477	.039			39,653	.031	111	102
	Telephone & Telegraph			943	.001			1,058	.001	100	91
	Custodial Services & Supplies			21,078	.020			27,257	.021	103	94
	Buildings and Sites			190,737	.184			190,737	.150	82	73
	Maintenance of Buildings			1,586	.002			13,021	.010	500	491
	Total Direct Costs			$557,260	.537			$745,229	.585	109	100
	Indirect Costs										
	Central Administration										
	Instruction			$ 13,988	.013			$ 17,682	.014	108	99
	Capital Outlay & Clearing Accts.			56,725	.055			85,552	.067	122	113
	Attendance & Health Services			44,144	.043			61,048	.048	112	103
	Operation of Plant			1,785	.002			2,360	.002	100	91
	Maintenance			2,052	.002			2,144	.002	100	91
	Fixed Charges			10,756	.010			22,168	.017	170	161
	Food Services			4,861	.005			15,636	.012	240	231
	Transportation			4,192	.004			7,454	.006	150	141
	Building & Sites			40,734	.039			69,179	.054	138	129
	Total Indirect Costs			- 0 -	- 0 -			- 0 -	- 0 -	- 0 -	- 0 -
				$179,237	.171			$281,243	.221	111	110
	Final Total Costs			$736,496	.710			$1,026,471	.806	114	105

* Inflation factor of 9.07 percent for 3 yr. period, July 1973 through June 1976, was provided by Center of Business and Economic Research, University of Tennessee, Knoxville. As used in last column it was rounded to 9 percent.

In the area of direct costs (after the inflation adjustment) concerning the 3 year average, an increase of 391 percent for maintenance of buildings was the high figure. This was followed by a 14 percent increase in salaries and a 2 percent increase in heat, light and power.

There was neither an increase nor decrease in total direct costs.

Indirect cost figures representing a decrease (after inflation adjustments) were buildings and sites at 27 percent; telephone and telegraph at 9 percent; and custodial services and supplies at 4 percent.

Indirect costs indicating increases (after inflation adjustments) over the three year 1971-74 average to the 1974-75 average were led by fixed charges with a high of 131 percent. Other indirect costs in this category were maintenance at 61 percent; food services at 41 percent; transportation at 29 percent; instruction at 13 percent and capital outlay and clearing accounts at 3 percent.

Decreases in indirect costs (after inflation adjustments) were 9 percent for both operation of plant plus attendance and health services. A 1 percent decrease was found in central administration.

Total indirect costs showed an increase of 19 percent while total final costs (both direct and indirect costs) showed an increase of 5 percent.

Summary

As reported for the operating year 1974-75, the variable in determining cost changes between the three-year average and 1975-76 and the 1974-75 -- 1975-76 average identifies with the direct cost category. The high direct cost unit, after adjustment for inflation, in 1975-76 was 130 percent at Farragut High School. This unit was also high at 127 percent when the average for 1974-75 and 1975-76 was used. Cedar Bluff Middle School was next high in

FIGURE II.22

COST COMPARISON SUMMARY

KNOX COUNTY - FARRAGUT AREA 1971-1974 AVERAGE TO 1975-1976

Extended School Year Project

School	UNIT COSTS Three-Year Average			Percent 1975-76 is of Three-Year Average			Adjusted for Inflation*					
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Farragut High School	.350	.173	.523	.488	.226	.714	139	131	137	130	122	128
Farragut Middle School	.355	.173	.528	.421	.226	.648	119	131	123	110	133	114
Farragut Primary School	.551	.172	.723	.580	.226	.806	105	131	111	96	122	102
Cedar Bluff Middle School	.541	.173	.714	.738	.226	.964	136	131	135	127	122	126
Cedar Bluff Primary School	.537	.173	.710	.618	.226	.844	115	131	119	106	122	110

*Inflation factor of 9.07 percent for 3 year period July 1973 through June 1976 was provided by Center of Business and Economic Research, University of Tennessee, Knoxville. As used in last column it was rounded to 9 percent.

FIGURE II.23

COST COMPARISON SUMMARY

KNOX COUNTY - FARRAGUT AREA 1971-1974 AVERAGE TO 1974-1976 AVERAGE

Extended School Year Project

School	UNIT COSTS						Percent 1974-1976 Av.					
	Three Year Average			1974-1976 Average			Is of Three-Year Av.			Adjusted for Inflation*		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Farragut High School	.350	.173	.523	.477	.223	.699	136	129	134	127	120	125
Farragut Middle School	.355	.173	.528	.394	.223	.617	111	129	117	102	120	108
Farragut Primary School	.551	.172	.723	.561	.223	.784	102	130	108	93	121	99
Cedar Bluff Middle School	.541	.173	.714	.662	.222	.884	122	128	124	113	119	115
Cedar Bluff Primary School	.537	.173	.710	.585	.222	.808	109	128	114	100	119	105

*Inflation factor of 9.07 percent for 3 year period, July 1973 through June 1976, was provided by Center of Business and Economic Research, University of Tennessee, Knoxville. As used in last column it was rounded to 9 percent.

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inflation adjusted costs for both 1975-76 and the average of 1974-75 and 1975-76 with 127 and 113 percents respectively. Low direct costs adjusted identified with the two primary schools. Farragut Primary School was lowest when 1975-76 was taken alone and when 1974-75 and 1975-76 were averaged. After adjustment for inflation, this school showed a minus 4 percent in 1975-76 and a minus 7 percent when the last two years were averaged. (See Figures II.22 and II.23)

Indirect costs, which are essentially prorations to specific schools of district-wide costs, were found to be constant when the three-year average was compared to 1975-76 costs and to the average of costs in 1974-75 and 1975-76, as would be expected. These costs, when adjusted for inflation, showed a 22 percent increase in 1975-76 and a 20 percent increase when 1974-75 and 1975-76 were averaged. The difference of approximately 10 percent in increases between direct costs and indirect costs makes it possible to speculate that the Extended School Year Program could have been responsible to this extent for increased costs.

Important in this summary is the credence put in the use of the inflation factor of 9 percent. This constant was accepted from a computer calculation provided through the Center for Business and Economic Research. It was used in an effort to identify increases associated with the ESY program. It is however, recognized that some of the increases could have come from sources not identified with ESY and not included in this study.

Increases worthy of notice in sub-categories of direct costs were generally found in all schools and were associated with salaries; heat, light and power; custodial services and supplies and maintenance of buildings. The inflated increases associated with maintenance of buildings have been influenced by costs related to installation and maintenance of air-conditioning. Building

maintenance costs are, however, relatively small when considered with total direct costs.

Indirect cost sub-categories which show sizeable increases are those associated with instruction, operation of plant, maintenance, fixed charges, food services and transportation. It should be recognized that these are pro-rated system-wide costs and are only partially influenced by costs specifically associated with the Extended School Year Program.

G. ATTITUDE TOWARD YEAR-ROUND SCHOOL

Voters in Farragut Area

In November 1974 the evaluators mailed a questionnaire concerning ESY to a sample of registered voters in the North Cedar Bluff Precinct (the only precinct in the Farragut area which, at that time, had been listed to permit automated retrieval of voters' names).

At that time information about ESY had been appearing in the local newspapers for approximately a year, curriculum revision efforts had been underway for ten months, the first Summer Quinmester had been completed, and preparations for the third quin of the new program were underway in the schools.

Voter opinion about ESY in November 1974 seemed overwhelmingly positive. Eighty percent of the survey respondents believed that ESY could "improve education in Knox County" and that the program "should be offered to other parts of the county." Eighty-eight percent liked the idea of providing families with alternatives to the summer vacation period for their children. Ninety-five percent of the voters responding agreed that "While the Extended School Year may not reduce educational costs, it can provide for greater use of school buildings and relieve overcrowded schools." (For further survey details, consult Evaluation of the Knox County Extended School Year Program, 1974-75, pp. 136-153.*)

The evaluation design originally called for a similar survey of voter opinion in Fall 1976, following the third Summer Quinmester. Newspaper stories in the summer of 1975 forecasting the demise of year-round school in Knox County exerted such a powerful negative influence on public opinion about ESY that a Fall 1975 survey, even if it had been planned, would have been seriously biased.

* This survey was conducted by Jerry Kondwros, Department of Educational Administration and Supervision.

Students

Student reaction to ESY was measured initially during the 1974 Summer Quin, then again during the second or Fall Quin. Majority opinion was positive; details were given in the 1974-75 evaluation report.

A third measure of student opinion, following nearly four quins of program operation, was administered to third, sixth, and tenth grades in March 1975. In March 1976 a fourth sample of student opinion was obtained, again in grades three, six, and ten.

Primary

The form "Student Reaction to ESY - Primary Level" was given to third graders at CBP and FP schools in March 1975. Approximately 89 percent (205) of the third grade class at CBP and 88 percent (180) of third graders enrolled at FP completed questionnaires.

Majorities of ESY third graders expressed positive reactions to eight of eleven questionnaire items. Approximately two-thirds of these primary level respondents said that they (1) were more interested in school this year than before ESY started, (2) liked the new ESY lessons and learning activities better than the lessons teachers used before ESY began, and (3) liked having the chance to go to school in the summer if they wanted to do so. About 55 percent of the third graders responding felt that (1) their teachers liked ESY and (2) they had been told enough about ESY to understand what it was and how it was supposed to work at their schools.

Third grade students indicated essentially negative perceptions in two of their "Student Reaction to ESY" responses. Only 21 percent felt that class size had been reduced since ESY began, and just 43 percent had the impression that student conduct (behavior) had improved.

Highly significant differences -- 10 to 23 percentage points -- on 7 of 11 items provided strong indication that third grade students who began the 1974-75 school year with the Summer Quinmester had a more favorable reaction to ESY than did their peers who attended only the "regular" school year.

Twenty-three percent more summer students liked "having the chance to go to school in the summer." Twenty-two percent more liked "the new ESY lessons and learning activities better than the lessons the teachers were using before ESY began." Nineteen percent more felt they understood the operation of ESY at their school.

In March 1976, 462 of 505 (92 percent) third graders enrolled at the two ESY primary schools completed the form "Reaction to ESY - Primary Level." By this date responses to questions about year-round use of the schools had been profoundly influenced by the fact that the Knox County school board had voted not to continue ESY for a third summer. One year earlier two-thirds of the third graders had expressed approval of year-round operation of their schools, but in March 1976 just 49 percent of the third grade respondents said they believed 'the West Knox County schools <u>should</u> be used for teaching and learning 12 months of the year.'

Under the conditions which prevailed in March 1976 just 16 percent of the third grade sample said 'Yes' when asked "<u>If</u> your school were going to be open for teaching and learning <u>NEXT</u> summer (Summer 1976) would you like to attend the Summer Quinmester?" Apparently Summer Quin attendance in 1976 would not have been much, if any, higher among third graders than it was in Summer 1975.

If student opinion is a valid indicator, the enthusiasm of third grade teachers for the ESY program increased during its second year. In 1976, 72 percent of the third graders said their teachers 'seemed to like ESY', an increase of 17 percent over the affirmative response of the previous year.

Third grade students in 1976 seemed to be well pleased with their studies: 85 percent said they 'liked the new lessons and learning activities' associated with ESY, and 71 percent said they liked school 'more this year than last year.'

As was the case in 1974, students who attended the Summer Quinmester in 1975 generally expressed more favorable attitudes toward extending the school year than did their classmates who attended school from September to June. Seven percent more summer third graders believed their schools should be used year-round; 24 percent more (i.e., 40%) would have liked to attend a 1976 Summer Quin.

Middle Schools

Sixth graders were selected to represent the attitudes of middle school students toward ESY in March 1975. The instrument "Student Reaction to ESY - Intermediate Level" was administered to the sixth grades at CBM and FM near the end of the fourth ESY quinmester. This questionnaire was completed by 91 percent (282) of the CBM sixth grade and by 91 percent (209) of the FM sixth grade.

More than 70 percent of the sample of ESY sixth graders said that they liked "having the chance to go to school in the summer," and that they understood ESY and how it was supposed to work at their school. A slim majority (55%) of the sixth grade respondents said they liked "the new ESY lessons and learning activities better than the lessons the teachers were using before ESY began."

Positive responses were given by less than a majority of sixth graders on three other items related to ESY. Just 39 percent were "more interested in school this year" than before ESY; 24 percent felt that student conduct (behavior) had improved since ESY begun; and only 20 percent perceived that their classes were smaller than prior to ESY.

Sixth grade students who attended the 1974 Summer Quinmester provided more positive responses to all questionnaire items than their peers who began the school year in September. Eighty-seven percent of the summer students favored "ESY lessons and learning activities" over the previous curriculum, while 50 percent of their classmates responded similarly. Twenty percent more Summer '74 students (57% vs. 37%) said they were "more interested in school" than prior to ESY.

In March 1976, 86 percent of the sixth graders at the two ESY middle schools completed the form "Reaction to ESY - Intermediate Level." As was the case with third graders, administrative decisions regarding termination of ESY appeared to have influenced the thinking of sixth graders: only 51 percent of the sample believed 'the West Knox County schools should be used for teaching and learning 12 months of the year.' In one year the approval level had fallen 20 points. And only 17 percent of the sixth grade respondents said they would be interested in attending a Summer Quinmester in 1976 if it were available. Apparently interest in summer attendance was no more widespread in 1976 than in 1975.

According to their students, sixth grade teachers were more comfortable with ESY in 1976 than in 1975. Twenty percent more (78% vs. 58%) sixth graders said in 1976 that their teachers seemed 'to like ESY.'

Sixth grade students themselves seemed more enthusiastic about school during the second year of the new program: three-quarters of the 1976 sample liked 'the new lessons and learning activities' the teachers had been using 'since ESY began', and liked school 'more this year than last year.'

As in 1975, sixth graders who had attended the preceding summer quinmester expressed much more positive opinions about extending the school year than did their "regular" school year classmates. One quarter more 1975 Summer Quin

students approved of year-round operation of the schools than did their classmates, and 51 percent more (63% vs. 12%) said they would have been interested in a 1976 Summer Quin.

Farragut High

Opinion of secondary students on a number of items related to ESY objectives was sampled in March 1975 using the instrument "Reaction to ESY at Farragut High School." School officials agreed to administer the questionnaire to all sophomores, in their English classes; and to all seniors, in their homerooms. Questionnaires were actually completed by 345 sophomores, or 78 percent of those enrolled in March; and by 174 seniors, or about 60 percent of the seniors enrolled in March.

Majorities of all sophomore and senior respondents expressed favorable opinions on 40 percent of the items on the "Reaction to ESY at Farragut High School." Eighty-seven percent of the students liked having the opportunity to attend school in the summer if they chose to do so. Eighty-two percent said they "had been told enough about the Extended School Year to understand" the program and its operation at FH. Seventy-eight percent of the respondents felt that "having the opportunity to take off a quin other than summer quin makes it easier for a student to find a job if he/she wants one." Fifty-five percent considered "the opportunity to seek employment at a time other than summer to be one of the biggest advantages of ESY." Fifty-four percent of all respondents said that they liked "the new ESY curriculum (lesson plans and learning activities) better than the curriculum the teachers were using before ESY began."

On two questionnaire items the majority opinion was essentially negative. Only thirty percent of the respondents felt that there were fewer students in their classes since ESY began. Thirty-three percent said they were "more interested in school this year" than they were before ESY started.

Students who began the 1974-75 school year with the Summer Quinmester had more positive opinions about almost every aspect of the ESY program than did their classmates who attended during the "regular" school year. Summer students exceeded regular students by 28 percent in their positive responses to the question "Are you more interested in school this year than you were before ESY started?" Twenty-two percent more summer students said they liked the new ESY curriculum better than that used in the past. Probably reacting to their summer experience, 27 percent more summer students said their classes were smaller since ESY began.

In March 1976 FH sophomores were again questioned in their English classes about their reactions to ESY. The "Reaction to ESY at Farragut High" forms were completed by 350 of 475 (74 percent) tenth graders enrolled during March 1976. The percentage of sophomores who believed that the West Knox County schools should be used year-round fell from 88 percent in March 1975 to 72 percent a year later. Undoubtedly this drop reflected the lack of commitment to ESY which had recently been expressed by Knox County's school board and superintendent.

Interest in continuing ESY through the 1976 Summer Quinmester was significantly greater at FH than at the primary and middle schools: 29 percent of the sophomores sampled said they would 'like to attend' a 1976 Summer Quin.

Sophomores in 1976 sensed much more positive attitudes toward ESY among their teachers than did sophomores in 1975. Affirmative answers to the question "Do your teachers seem to like ESY?" were given by 47% of the tenth grade respondents in 1975 and by 67% in 1976.

In 1975 less than half of the sophomores were convinced that the ESY program had improved their attitudes about school. In 1976, 57 percent of the sophomores responding said they liked school 'more this year than last

year', and 67 percent liked 'the new lessons and learning activities' associated with the ESY curriculum changes.

Students who attended the 1975 Summer Quinmester expressed much more positive opinions about year-round programming than did their peers who began the school year in September: more than ten percentage points separated the two groups on the issue of whether the schools should be open year-round, and more than half of the Summer Quin sophomores would have been interested in a 1976 Summer Quin.

Sophomores differed little between 1975 and 1976 in their responses to questions about jobs and ESY. In March 1975, 53 percent of the tenth graders considered 'the opportunity to seek employment at a time other than summer to be one of the biggest advantages of ESY.' In March 1976 this percentage was 58 percent. The possibility of actually getting a job 'at a time other than summer' may have improved between 1975 and 1976 because the percentage of summer sophomores who reported being employed during their vacation quins increased from 33 percent in 1975 to 52 percent in 1976. Summer employment for regular term sophomores did not change appreciably over the year: 36 percent reported having jobs in 1975 compared to 34 percent in 1976.

Parents

The 1975 Survey

In March 1975 a questionnaire for parents was sent home with all third, sixth, and tenth grade students in the ESY schools. Approximately one-third of the "Parent Reaction to ESY" forms were returned. These were augmented with forms administered at PTA meetings, so 505 parent questionnaires were eventually processed.

Approximately 80 percent of the parents who participated in this survey expressed the opinion that they had "received enough information to know how

the Extended School Year Program" was operating in their children's schools. As might be expected, parents of students who attended the 1974 Summer Quinmester at the primary and middle school levels felt more comfortable (positive response rates of 92 and 93 percent) with their degree of understanding of the program.

More than three-fourths of the parents responding favored "the ESY plan for using Knox County Schools on a 12-month basis (year-round)." All parents of middle and high school students who attended the 1974 Summer Quin favored the ESY plan, and 92 percent of the parents of primary Summer Quin students expressed the same opinion.

Less than 15 percent of all parents felt that ESY had "significantly reduced the number of students" in their children's classes.

The idea of a mandatory attendance plan (i.e., assigning students to quinmesters rather than allowing them to choose) to relieve over-crowding appealed to about one-fourth of the parents. Parents of primary and middle school students who attended the Summer Quin were most in favor of the non-voluntary plan (favorable response levels of 51 and 46 percent, respectively).

In response to an open-ended item 57 percent of the respondents identified what they liked BEST about ESY. The most popular response (37% of those who wrote an answer) was the opportunity to choose the time of year when one could be out of school (choice of vacation). Smaller classes during the Summer Quinmester, and at least the promise of smaller classes during the regular school year, were named as positive features of ESY by 28 percent of the parents who wrote an answer. Year-round use of school facilities and personnel was considered an important justifying feature of the program by 16 percent of the parents providing a response in this category. Seven percent of the responderts favored the opportunity students had in the program to set their own goals, and progress

through school at their own rates. Other positive features mentioned by several parents included (1) the possibility of saving tax dollars with such a program; (2) the relaxed atmosphere in the summer, with the opportunity for teachers to get to know students better; (3) the chance to make up 9-week failures without having to repeat a whole year's course work; (4) wider variety of subject choices; (5) planned sequencing of skills, K-12; and (6) the opportunity for students to seek employment at a time other than summer.

In summary, a substantial majority of ESY parents in the spring of 1975 appeared to favor the ESY plan for using schools year-round. They most appreciated the opportunity to choose a time other than summer for children's vacations. They also liked the idea of using facilities and personnel year-round, and looked forward to the time when the program might reduce class size and permit more individualization of instruction.

The 1976 Survey

Again in March 1976 the parents of third, sixth, and tenth grade ESY students were surveyed, via an instrument sent home with students, regarding their opinions of ESY programming. One-third of the parents actually participated in the survey. Parents' responses to items about extending the school year appear in Figure II.24.

With two exceptions, parents of students who attended the 1975 Summer Quin expressed more positive attitudes toward year-round education than did parents of students who attended only the regular school year. Parents of summer sophomores, perhaps discouraged and embittered by the premature ending of ESY, expressed more negative reactions to Items #3 and #4. In general, parents whose children had attended a summer quin saw benefits in having the summer session and had a vested interest in seeing ESY continue.

FIGURE II.24

PERCENTAGE OF 'YES' RESPONSES TO ITEMS CONCERNING YEAR-ROUND PROGRAMMING EXPRESSED BY PARENTS OF THIRD, SIXTH, AND TENTH GRADE ESY STUDENTS

	ALL GRADE 3 PARENTS	SUMMER GRADE 3 PARENTS	ALL GRADE 6 PARENTS	SUMMER GRADE 6 PARENTS	ALL GRADE 10 PARENTS	SUMMER GRADE 10 PARENTS
1. Do you believe that the West Knox County Schools should be used for teaching and learning 12 months of the year ?	38	70	47	81	44	67
2. If your child's school were going to be open for teaching and learning NEXT summer (Summer 1976) would you like him/her to attend the Summer Quinmester?	12	44	15	42	18	33
3. Do you feel the third year of the ESY try-out (including the 1976 Summer Quin) should have been carried out?	41	72	38	64	43	40
4. If the new school facilities currently under construction do not provide permanent relief from over-crowding, would you be in favor of trying the extended school year again in a few years?	70	80	78	83	64	40
*5. Do you consider the opportunity your child has to take a job at a time other than summer to have been one of the biggest advantages of ESY?					27	67

*This item included only on form submitted to parents of tenth graders.

Parent enthusiasm for year-round education in 1976 was dampened considerably (as was their children's) by the administrative decisions which caused the ESY trial to be cut short. While in March 1975 three-fourths of the parents of third, sixth and tenth graders responding to the survey favored year-round operation of the Knox County schools, by March 1976 this percentage had dropped to 43.

No more than 15 percent of the ESY parents expressed interest in sending their youngsters to a third summer quin if it had been held. Apparently the school system could count on the participation of 10 to 15 percent of the student population in any summer session held in the FH attendance area. But without a massive community-wide public information and education effort, the 25 percent participation which the County school system administrators had set as a goal could not be achieved.

Since only about 40 percent of the third, sixth, and tenth grade parent respondents felt that the three-year ESY experiment should have been carried to its conclusion, it was surprising to find that 70 percent favored reinstating an extended school year in a few years if new facilities failed to 'provide permanent relief from over-crowding.'

Parents of FH sophomores who attended the 1975 Summer Quin were much more interested in the job-seeking advantage provided by the ESY schedule than were parents of students who did not attend in the summer. The fact that over 60 percent of the Summer Quin sophomores and their parents expressed interest in 'the opportunity to take a job at a time other than summer' suggests that many of the sophomores who attended the summer session were there so that they could seek employment during a vacation quin between September and June.

Without exception parents reacted to questions about year-round education with more restrained enthusiasm than did their children. But the response differences were not great, averaging 6 percentage points.

When asked why so few students had chosen to attend the summer quinmesters, the responses of parents and students at all levels (primary, middle school, and secondary) were remarkably similar. The reasons ranked first and second by all groups were "Summer is the time for vacation from school; it's hard to change that habit and think of coming to school in the summer," and "Students

miss too many summer activities (camp, swimming and other sports, family trips) if they attend school during the summer." Forty-eight percent of all student responses and 45 percent of all parent responses to the question about summer quin attendance were in these two categories.

Professional Staff

In October 1974 several questionnaires were submitted by the evaluation team to the teachers and principals at the ESY schools. At that time responses were received from 92 percent of the ESY professional staff; and substantial majorities of the staff expressed positive attitudes toward most of the aspects of ESY which were presented. (For more details see Evaluation of the Knox County Extended School Year -- 1974-75, pp. 24-31.)

Interviews with principals and a few teachers during visits to the ESY schools in April 1975 and May 1976, and interviews with 20 percent samples of teachers at each school in December 1975, confirmed the impression that all building level administrators and most teachers approved of the ESY scheduling and curriculum, and were disappointed that the program would not be continued.

When several teachers at each ESY school were asked in May 1976 how they felt about the decision to cut short the ESY experiment, 60 percent said they thought the ESY project should have been carried to its pre-planned conclusion. Several of those who favored continuation said that children who had attended the summer quins and their parents felt like guinea pigs, and that everyone would have been more satisfied if the program had been completed as originally planned. Two primary teachers said the school system had damaged its credibility with the public by committing itself to a three-year trial of ESY, then cutting off the third year. Several of the teachers who did not favor continuation of ESY had taught during one of the summer quins and said they needed a quin off just as the students did.

In May 1976 the ESY principals were unanimous in their expressions of disappointment about the demise of ESY. Without exception the principals believed their schools should be used year-round. They felt that students benefitted from the availability of a summer term.

There was also a general feeling of frustration among the principals because the planned three-year ESY trial had been cut short. Several principals said the failure to complete the project according to the original schedule hurt the school system's credibility in the community. However, most of the principals acknowledged that it would have been extremely difficult to conduct a summer quinmester in 1976 because every ESY school was to be involved in the move to reallocate physical space which had resulted from the construction of two new buildings.

The quinmester plan for extending the school year had at least one drawback from the point of view of professional staff: the time between quinmesters was usually limited to two or three days, including week-ends. The ESY principals were asked if teachers had complained about the lack of time for "renewal" between quins. They replied that most teachers had adapted to the new schedule and curriculum without complaint. Only a few of those who had taught the first summer experienced some mental and physical fatigue at the beginning of the first fall quinmester because they had missed their usual summer break. Most summer quin teachers had enjoyed their small classes and enthusiastic students so much that they felt renewed by their summer work.

The ESY principals reported that student and faculty morale was so high during the summer quinmesters that discipline problems and vandalism were virtually eliminated from the concerns of the building administrators.

H. FEASIBILITY OF QUINMESTER ESY PLAN WITH ATTENDANCE OPTIONAL

Knox County administrators made the decision to adopt the quinmester plan for extending the school year because the Knox County system's school year had recently been divided into nine-week segments for reporting purposes when ESY was proposed. The nine-week quinmester schedule was thus seen as the lease disruptive for implementation in the West Knox County schools.

Only one-fourth of the parents of ESY students who responded to a questionnaire in March 1975 said that they would favor "assigning students to the various quinmesters (a mandatory attendance plan) if this plan would relieve overcrowding in the schools." Because they correctly anticipated this adverse reaction of parents and the community to a mandatory attendance plan for extending the school year, Knox County's administrators committed their system to an optional or voluntary attendance plan at the outset.

Summer Enrollment

Need to Educate the Community

One of the ESY objectives was to provide a good summer program and to publicize it within the community so that at least 25 percent of the students at ESY schools would attend the Summer Quin voluntarily. Thirteen percent attended the 1974 Summer Quin, and this was considered a good start. But some of the students who attended the first summer experienced problems during subsequent quinmesters which were related to summer attendance. An intensive public relations effort was needed to (1) offset adverse reactions expressed by disgruntled Summer '74 students and (2) convince other students and their parents of the potential benefits of summer attendance.

At one school the principal mounted his own small publicity program just prior to the date for students to pre-enroll for the 1975 Summer Quin. A higher

percentage of the student body at that school elected to attend the 1975 Summer Quin than was expected, based on Summer enrollment percentages at the other schools. And half of the students who attended the 1974 Summer Quin at that school chose to return for Summer '75; at the other schools approximately one-third of the 1974 Summer Quin students returned for Summer '75. These statistics provide evidence of the effect a well-organized public relations campaign might have had on the 1975 Summer Quin enrollment.

While the importance of communicating with students and parents regarding ESY cannot be over-emphasized, this is but the first step in a community-wide public relations effort that must be mounted if year-round school programs, especially those dependent on voluntary summer attendance, are to succeed. The February 9, 1976 issue of Education U.S.A. quoted Carl Meseck, a Glendale, California city councilman and YMCA director:

> "Year-round education does not have a ghost of a chance of success if educators continue to ignore the local community and the private agencies. I could go into any community and quickly organize enough opposition to defeat year-round education if educators continue to destroy things like Boy Scout camps, YMCA programs and Camp Fire Girls by competing with them during intersessions. These agencies have a legitimate place in the broad education process and they will fight back" (p. 137).

Promotion of the 1975 Summer Quin turned out to be minimal at most ESY schools, primarily because the central office staff did not provide strong leadership in this area. As a consequence, the Summer '75 enrollment was eleven percent, two percent lower than that of the previous summer. The lack of an increase in enrollment for the second summer session convinced Knox County administrators, principally the superintendent of the system, that the year-round plan was not popular enough to warrant the extra expenditures necessary to keep the schools open during the summer.

Survey of Summer Quin Non-Returnees

The Summer '74 students who did not attend the 1975 Summer Quin, but had returned to ESY schools in September 1975 (18% had not) were quizzed in October about their reasons for not coming back for the second summer. Their responses indicated that families associated with ESY schools simply found it inconvenient, for one reason or another, to have a family member in school during the summer. The tradition of summer as the time for vacation from school was just too strong to permit the ESY families to break it two years in a row.

Twenty percent of the parents (who were asked to respond for their children in grades 1-3) of primary students said their children had not attended the Summer Quin because of academic problems encountered in subsequent quins which could be attributed to Summer '74 attendance. Only eight percent of middle and high school students gave academic problems as their reason for not coming back the second summer.

At the primary level the three chief reasons given for not repeating the summer experience were (1) inconvenience to other family members if one were in school during the summer, (2) academic problems due to Summer '74 attendance, and (3) missing summer activities such as swimming, camp, and family trips.

Responses from students in both middle schools produced this hierarchy of reasons for not returning: (1) missed having other children to play with during vacation quin, (2) missed summer activities, and (3) inconvenient for other family members to have one in school during the summer.

FH students who failed to return for the second summer apparently were disturbed by a feeling of being out of phase with the traditional calendar of activities for their age group, and they did not want to repeat that

experience in 1975-76. One-quarter said they missed summer activities in 1974, 16 percent were concerned because age-mates were in school while they were on vacation, 15 percent said they had had opportunities to take a trip or job during Summer '75.

1976 Query of Students and Parents

Responses of parents and students to questionnaires given near the end of the second year of the Extended School Year (ESY) trial (March 1976) indicated that while 40 percent of the parents and 57 percent of the students (including 72 percent of the high school) believed that their schools should be in use year-round, no more than 15 percent of the students would have attended a third summer quinmester if it had been offered.

When asked why so few students had chosen to attend the summer quins, the responses of parents and students at all levels (primary, middle school, and secondary) were remarkably similar. The reasons ranked first and second by all groups were, "Summer is the time for vacation from school; it's hard to change that habit and think of coming to school in the summer," and "Students miss too many summer activities (camp, swimming and other sports, family trips) if they attend school during the summer." Forty-eight percent of all student responses and 45 percent of all parent responses to the question about summer quin attendance were in these first two categories.

Seventy-eight percent of all student and all parent responses were accounted for when the reasons ranked third and fourth by all groups were included: "As some of those who attended the summer quin found out, vacationing at a time other than summer can be a lonely experience if most of one's friends are in school," and "It just isn't convenient (it may cause some problems) for some families to have a child in school during the summer."

The reasons given for low summer enrollments can be summarized as follows: most people find it uncomfortable to be out of phase with the schedule of events both in school and in the community, which is being pursued by the majority.

Neither parents nor students strongly blamed the school system for failing to "sell" ESY to the community: only 5 percent of both groups gave this as the reason for low summer attendance. The lack of public information and education was, however, more than twice as important to parents of summer quin students as to other parents: 13 percent of the summer parents said the system failed to sell ESY. Only 2 percent of parents and 4 percent of students believed that academic problems resulting from summer quin attendance the first year had contributed to the lack of student interest in the second summer term.

At the end of the questionnaire sent to parents in March 1976, space was provided for respondents to suggest to school administrators how ESY might be made to work in Knox County. Parents of third, sixth, and tenth grade students agreed that a mandatory attendance plan would do most to insure that an extended school year program would meet the goals set for it. A large segment of parent remarks contained the suggestion that a different scheduling pattern -- perhaps the 45-15 plan -- be substituted for the quinmester system. Several parents preferred that the schedule be set up to divide the summer between two attendance periods so that all students could have part of the summer off.

The third most common parent suggestion was that the school system do a more effective job of promoting the extended school year -- for its own staff, for students and their parents, and for the community. Several parents believed that the YMCA and other community organizations could help make off-season vacations from school more attractive by providing extra activities throughout the year.

Some of the parents of primary and secondary school students recommended that the summer program be used to provide enrichment, with courses in tennis, swimming and other outdoor sports; crafts; music; art; foreign languages, etc.

A few parents said that it was difficult to be out of phase with the rest of the schools in Knox County and with other school systems throughout the country (since many families must move to or from other communities during the school year and school transfers are complicated by differing schedules); these parents felt the summer vacation tradition would have to be broken nationwide for year-round scheduling to work in any one area.

Principals' Reactions - 1976

When the five ESY principals were questioned in May 1976, they were in general agreement that the objectives of reducing overcrowding and effecting operational economies through year-round scheduling could not be realized without a mandatory attendance plan. That is, all students would have to be assigned to an attendance group which would periodically (using the quinmester plan) attend school during the summer. While the principals felt that a more effective public relations program in the community would have helped increase summer attendance, they did not believe the goal of a summer enrollment comprising 25 percent of the student population would ever have been reached as long as summer attendance was voluntary. The tradition of summer as the time for family vacations is too strong, the principals felt. Moreover, the climate in East Tennessee does not permit enjoyment of some outdoor activities year-round; thus summer is the only time for a vacation that involves water sports.

Community Willingness to Finance ESY

The Knox County system approached its year-round experiment from a sound educational base. Curriculum revision, K-12, was to be an essential prerequisite

for the conversion to a twelve-month calendar. The first, or Summer, quinmester was to be an integral part of the curriculum structure, not just an add-on for recreation or possible enrichment. Each subject was divided into five discrete units, called modules, which permitted a starting point for students returning from vacation, an ending point for students leaving for a quin, and continuity for all concerned. The modular structure allowed students with problems to repeat a 9-week segment of a course immediately, rather than a year later when a whole course had been failed. The Summer Quin could be used for remediation, enrichment, acceleration, or as a time for students with special needs to benefit from small class size and increased attention from teachers.

Don Glines, California's year-round education coordinator, told a national year-round education seminar in January 1976 that "A move is beginning to recognize year-round education as a philosophy of learning." Where building-oriented people trying to save a dollar have been in charge of year-round programs, the teachers tend to teach traditional education in a year-round calendar. But where curriculum people are involved, and curriculum changes are made, year-round programming is going ahead (Education U.S.A., February 9, 1976, p. 139).

Majorities of teachers, administrators, and students at the ESY schools -- those most vitally affected by it -- were convinced by the second year of the program that their new curriculum was better than that used in previous years. Undoubtedly the curriculum would be adopted on a permanent basis -- approved by the school board and financed by the community -- regardless of the fate of year-round programming. This seems ironic since the concept of year-round scheduling of personnel and facilities was originally used as the vehicle for obtaining conceptual and financial support for revamping the curriculum.

This irony is compounded by the knowledge that, unfortunately, it is not possible to tell how much community support might have been obtained for

year-round scheduling, or how many students might have been encouraged to attend the Summer Quinmester IF school administrators had (1) effectively publicized the program among students and parents, and within the community, and (2) fully supported the program throughout its three-year trial.

As it happened, administrative support was withdrawn before the second year of ESY operation even began. Thus, publicity prior to the second summer quin was minimal; and just before that quin began the County Superintendent stated publicly that the program should not be continued because the summer quin was (1) too expensive, and (2) not popular enough with students and their families. Given these background factors, the slim summer enrollment in 1975 was a self-fulfilling prophecy, and eventual curtailment of the ESY project a foregone conclusion. Indeed, Title III funding for the full third-year plan of operation was withdrawn during Fall 1975, and on March 3, 1976 the Knox County Board of Education -- faced with the necessity of calling for an increase in the property tax to finance the program -- voted to cut out the 1976 Summer Quin and discontinue the ESY experiment with the fifth quin of the 1975-76 school year.

In May 1976 principals were asked about the feasibility of cutting summer quinmester costs through consolidation of attendance centers. There was some resistance to the idea of combining the two primary schools or the two middle schools because (1) transportation costs would be increased by such a move, and (2) the advantage of small summer classes might be eliminated if the number of teachers were reduced via consolidation.

The principals were much more willing to accept consolidation as it was accomplished the second summer, i.e., operating Cedar Bluff Primary and Cedar Bluff Middle schools in the CBM building and combining Farragut Middle and Farragut High at FH.

Two principals expressed thoughts about summer operations after 1976. One felt that ESY had helped to demonstrate the need for a free summer term in West

Knox County for purposes of enrichment and remediation. The other principal speculated that the community might demand the reinstatement of ESY in future years to alleviate overcrowding. Prior to the current ESY trial there was insufficient time to sell the program, but now that year-round operation is a more familiar concept it might be more readily accepted if proposed again.

ESY At Primary, Intermediate, and Secondary Levels

When ESY principals were interviewed by the evaluator, no consensus emerged on the subject of whether the program worked better at one organizational level than at the others. The high school principal felt that the idea of attending school during the summer might be more acceptable to students at the secondary level. (Student opinion at FH in March 1976 confirmed this feeling: interest in attending a third summer quin if it were held was almost twice as great among FH sophomores as among primary and middle school student samples.) One middle school principal said that ESY might be easier to manage in the middle school, citing scheduling difficulties as a drawback at the high school level. The other middle school principal said he felt there might be more willingness to try new programs, such as ESY, at the primary level. Both primary principals felt ESY was working well at their schools, but both felt that first graders who attended the Summer Quinmester should be encouraged not to take their vacation during the second or Fall Quinmester. During Fall 1974 much orientation and readiness assessment took place in the first grade, and this was not duplicated in toto during the Summer Quin. While this situation could be corrected, the primary principals nevertheless felt that first graders needed to experience the continuity of two or more successive quinmesters of school work.

In short, the ESY principals as a group saw advantages and disadvantages for the program at each of the three organizational levels.

SECTION III.

EVALUATION SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

A. INTRODUCTION

In June 1974 students in five Knox County (Tennessee) schools (two primary, two middle, and one high school) became involved in a three-year trial of a voluntary quinmester plan for extending the school year. Curriculum revision, K-12, was the principal thrust of the ESY project, but administrators also hoped to relieve overcrowding in the schools and to effect more efficient use of professional staff and physical facilities.

During the first two years of the program substantial progress was made toward standardizing curriculum goals and objectives and providing teachers with current instructional resources. However, with Summer Quinmester attendance on a voluntary basis, only 13 percent (650 students) of the total five-school enrollment was present during the 1974 Summer Quin, and the percentage fell to 11 (620 students) during the 1975 Summer Quin. Thus overcrowding during the four remaining quinmesters was not substantially reduced, and the additional expense of operating a summer program was not offset by economies effected during the regular school year. Reacting almost exclusively to financial considerations, the local school board voted in March 1976 to cut short the extended school year experiment by eliminating the third Summer Quin.

B. SUMMARY OF FINDINGS

The New Curriculum

Student Morale and Motivation

Indications of the effect of the ESY curriculum changes on student morale and motivation at the five project schools were obtained from school records and from questionnaires administered to samples of students at each level: primary, middle, and secondary. When school records were used, figures from the two years of ESY operation were compared with those for the three years prior to ESY, i.e., 1971-72, 1972-73, and 1973-74. While none of the indicators, as discussed below, revealed a dramatic positive change that could be directly attributed to the ESY materials, no indicator showed a significant negative change, either. Indeed, the number of high school dropouts declined during the ESY years, vandalism and behavior problems were virtually nonexistent during the two summer quinmesters, student attitude toward school was quite positive, and primary and middle school students perceived an improvement between the first and second years of ESY in the extent to which instruction was being individualized. Directions discernible in the data supported an overall conclusion that the ESY curriculum certainly had not had a negative influence on student morale or motivation, and in some cases the effect appeared to be a positive one. Key findings associated with each indicator are summarized below.

·Attendance was not significantly affected by the introduction of ESY. During the two ESY years annual average daily attendance at the five schools decreased in as many instances -- five -- as it increased. When average daily attendance for each of the summer quinmesters was compared with ADA for the subsequent September-June school year, no significant differences were found.

·At the primary and middle schools the dropout rate remained relatively stable and quite low during the five years studied, i.e., the three years prior to ESY and the two years of program operation. At the high school the number of dropouts had decreased significantly by the end of the second ESY year. The numbers of students leaving school due to employment, marriage, and misbehavior declined between 1971-72 and 1975-76. Undoubtedly labor market constriction and other societal pressures, as well as school policies and procedures, contributed at least as much as ESY curriculum changes to the decline in the dropout rate.

·ESY principals reported that student-faculty morale was at a high point during the summer quinmesters, and vandalism and other discipline-related problems were virtually eliminated from the concerns of principals. However, the principals did not see an appreciable difference during the September-June school years in the number or seriousness of (1) disciplinary referrals to principals or (2) incidents of vandalism.

·Librarians at the ESY schools generally agreed that the ESY curriculum changes increased the use of library references by students. However, total circulation declined at three schools during the second year of the program, giving rise to the speculation that reading for pleasure may have declined.

·Teachers did not feel that student usage of instructional materials other than library books -- specifically those available in classrooms -- increased significantly with the introduction of the ESY curriculum modules. With the standardization of objectives and curriculum topics brought about by the new curriculum, more teachers attempted to teach the same topics simultaneously than ever before. This meant that several teachers needed the same set of instructional materials at the same time. Sometimes it was possible to coordinate the timing of topics so that each teacher could have all the materials

he or she needed, and sometimes it was not possible. Several teachers said that student usage of curriculum materials could not increase until the supply of such materials was increased.

·Since no comparable measure of student attitude toward school prior to 1974-75 was available, there was no way to determine whether the ESY curriculum changes produced an improvement or a decline in student attitudes. However, administration in March 1975 of the appropriate form of the "School Sentiment Index" at each level (primary, intermediate, and secondary) provided evidence that majorities of students at all schools held favorable attitudes toward the aspects of school measured by the instrument. In March 1976 a second sample of student opinion at all levels was drawn, and comparison of the 1976 responses with 1975 responses to such questions as "Do you like school more this year than last year?" and "Do you like the new lessons and learning activities ...?" indicates that student attitudes improved during the second year of ESY.

Without exception the students exhibiting the most favorable attitudes at each school were those who had attended the summer quinmester. This fact combined with the other findings makes it reasonable to conclude that institutionalization of the ESY schedule and curriculum changes during the second year resulted in student attitudes which were (1) improved somewhat from the first year of ESY operation, and (2) quite positive.

·Individualization of instruction was one of the principal goals of the curriculum revisions associated with ESY. Perhaps due in large part to the inflated pupil-teacher ratios at the crowded ESY schools, the goal of individualizing instruction for at least a majority of the ESY students was not achieved during the first operational year. Though the ESY schedule provided no significant relief from overcrowding during the second year, student perceptions of the extent of individualization taking place did improve.

More than half of the primary and middle school students sampled in March 1976 gave favorable responses to six of eight questionnaire items concerning individualisation. Thus the 'majority positive' criterion set for individualiation appeared to have been met at primary and middle schools.

Significant improvement in perceptions of individualization took place among sophomores at FH between March 1975 and March 1976, but the 'majority positive' criterion was not reached. Only 27 percent of the tenth graders perceived that they were 'allowed to skip over things' they already knew and work at their own rates of speed, and just 33 percent said their study materials were 'not the same as those' other students were using. Only 3 percent answered positively the question "In most subjects do you and the teacher plan the work just for you?"

Professional Staff Satisfaction with Curriculum

Interviews with a sample of teachers at each ESY school during the second operational year revealed that most teachers:

·approved of the contents of the document Instructional Goals and Objectives which had been written by Knox County teachers and supervisors to guide the development of ESY curriculum modules. Teachers apparently appreciated having some knowledge of system-wide expectations regarding subject area content and student performance.

·appreciated having the opportunity to write and to revise the curriculum modules.

·used the modules as resource units rather than as series of daily lesson plans.

·approved generally of module content, viewing performance objectives and suggested learning activities as the most helpful components, and evaluation of pupil performance as the least helpful.

·viewed limited access to library and audio-visual resource materials as a major obstacle to full utilization of the ESY modules.

·did not consider the ESY modules particularly helpful in individualizing instruction.

·planned to continue using ESY curriculum materials even though year-round scheduling was discontinued.

Unquestionably the curriculum modules were considered a major teaching resource by the ESY faculties. Teachers who wrote modules used them most, but a high percentage of the other teachers referred to them frequently; and even those who did not use the modules daily had consulted the sections containing performance objectives and learning activities.

Indaequate articulation between the summer quinmester and the regular school year continued to cause frustration for teachers, and academic problems for students, during the second year of ESY. Apparently the promise of a fully integrated five quinmester school year had not been realized as the ESY experiment drew to an end.

Staff turnover statistics for the school years 1971-72 through 1975-76 did not indicate any dissatisfaction with ESY on the part of teachers or administrators at the five project schools. Despite substantial increases in administrative workloads which accompanied extending the school year, no principal or assistant principal resigned or requested a transfer from an ESY school during the two operational years of the program. Due in part to a tightening labor market, the number of teachers leaving the system or transferring from ESY schools to other schools in Knox County declined steadily from 1972 through 1976. No upsurge in resignations or requests for transfer occurred when the ESY curriculum changes were instituted. An additional indication of teacher acceptance of ESY was the fact that the two summer quinmesters were staffed

almost exclusively with volunteers who were willing to forego their usual summer breaks and work year-round.

Student Achievement

Metropolitan Achievement Test scores for grades 3, 5, and 8 at the ESY primary and middle schools were compared for the years pre- and post-ESY. Reading achievement showed a small, non-significant, increase following the initiation of the ESY project. Mathematics achievement declined very slightly; and instituting the ESY curriculum did not interrupt the gradual, but unmistakable, decline in science and social studies achievement which occurred between 1971 and 1975.

During a period when national test score averages were experiencing a general decline, FH students held or increased the school's percentile rank on the various subscales of the ACT. Between 1972 and 1976 the group of FH juniors and seniors taking the ACT in the spring changed little in grade point average, but posted significant gains in English and social studies as measured by the ACT. The percentile scores on the ACT Composite and Math and Natural Science subtests were relatively stable during the same period.

The quantity and quality of the available achievement data severely limit conclusions about the effects of ESY curriculum changes on achievement. Nevertheless it can be said that the changes did not exert a significant negative influence on achievement as measured by the Metropolitan in grades 3, 5, and 8; and at the high school the new English and social studies curriculum materials may have been particularly effective in promoting student achievement.

Parental Approval of Curriculum Effects

In November 1974 almost two-thirds of a sample of registered voters in the area of West Knox County served by the ESY schools agreed with the statement,

"The Knox County Schools are providing students with the kind of educational experience that they need." But when a sample of ESY parents was questioned in March 1975 it was evident that parental approval of the new ESY curriculum was somewhat less enthusiastic.

Approximately half of the ESY parents felt they understood how the new curriculum was working in their children's schools. Parents did not agree on the worth of the new curriculum as compared with the curriculum used in the schools in past years: one third said the new curriculum was better than the old, one third was undecided, one third said the new curriculum was no better than the old. Half of the parents expressed the opinion that their children were sufficiently aware of the progress they were making toward achieving curriculum objectives.

When a second sample of third, sixth, and tenth grade parents was surveyed in March 1976, the respondents seemed to have adopted a more positive attitude toward the ESY curriculum than was apparent the previous year. Opinion of parents was generally less positive than that of their children on comparable items, and parents of tenth graders were much more negative toward the program than were parents of third and sixth graders. Nevertheless, parent approval appeared to be increasing as the new curriculum became institutionalized. Half of the parents believed their child liked school 'more this year than last year', and half of the third and sixth grade parents believed the new curriculum was 'effective' in helping their child 'learn basic skills: reading, writing, arithmetic.' Less than one-third of the sophomore parents believed the new curriculum to be effective.

As was the case in 1975, parents of students who had attended the summer quinmester responded more positively to most questionnaire items than other parents, but a significant proportion noted that their children had experienced

some problems during the regular school year as a result of their attendance in the summer. Scheduling classes during the rest of the year was viewed by parents and students as the summer sophomores' biggest headache. Parents of third and sixth graders who attended the summer quin provided further evidence of imperfect articulation between the summer quin and the rest of the school year: some said their children were 'behind in some subjects and had to catch up' and others said their children were 'ahead in some subjects and had to do some work over again' as a result of summer attendance.

Majorities of parents at all levels expressed negative perceptions of the extent to which instruction was being individualized at the ESY schools. However, majorities of parents at all levels believed there were 'too many students for the teacher(s) to have time' to help individuals with their work.

Administration of ESY

The curriculum changes associated with ESY increased standardization of expectations with regard to what teachers would teach and what students would learn. The five ESY principals believed the changes were making it easier for them to evaluate the instructional program in their schools. The County's new goals and objectives and the more specific objectives in the curriculum modules gave ESY principals 1) guidance concerning activities being carried out in individual subject areas throughout the year, and 2) criteria against which to measure student achievement in each subject.

Scheduling of classes at the high school during the first year of ESY had not satisfied the majority of secondary students. Only 28 percent of the sophomores and 18 percent of the seniors sampled in March 1975 said FH offered all the courses they wanted to take in high school. Considering the courses that were available, 53 percent of the sophomores and 37 percent of the seniors said they had been able to work out a schedule for the year that had allowed

them to take all the courses they wanted to take. Sixty percent of the sophomores and 44 percent of the seniors who attended the 1974 Summer Quinmester reported having scheduling problems that were a direct result of their summer attendance.

When sophomores at FH were sampled again in March 1976 their responses indicated that there had been some improvement in their perceptions of scheduling, but the situation was still far from optimum. Thirty-one percent of the tenth graders said FH offered all the courses they wanted to take in high school, and 63 percent said they had been able to schedule all the courses they needed from the list that was available. Half of the sophomores who had attended the 1975 Summer Quin reported that they had had 'problems with their classes' as a result of summer attendance, and scheduling was the problem identified most often.

Administrative Structure and Professional Development

Knox County administrators and supervisors involved in ESY reported that the new program had created many new responsibilities for them. During the first operational year these changes interfered with their other responsibilities, and since they had no additional assistance they had to spend more time at work. By the second operational year, however, ways had been found to integrate ESY-related responsibilities into existing work assignments so that both could be performed without a substantial increase in work time.

ESY administrators and supervisors believed they understood clearly the roles they were expected to play in the program's operation, and they felt competent to carry out these roles. They also perceived that they had the appropriate authority to accomplish their assignments. This group derived satisfaction from involvement in the ESY program; they believed ESY had improved the school system, and that it should have been continued to its pre-planned conclusion.

Development of the new curriculum materials constituted a substantial part of the professional development program for instructional leadership personnel. Supervisors, principals, and teachers worked together on strategies for implementing the materials, and on evaluation and revision of the materials. The professional development program was much stronger during the first year of ESY than during the second.

Cost Analysis

As reported for the operating year 1974-75, the variable in determining cost changes between the three-year average and 1975-76 and the 1974-75 -- 1975-76 average identifies with the direct cost category. The high direct cost unit, after adjustment for inflation, in 1975-76 was 130 percent at Farragut High School. This unit was also high at 127 percent when the average for 1974-75 and 1975-76 was used. Cedar Bluff Middle School was next high in inflation adjusted costs for both 1975-76 and the average of 1974-75 and 1975-76 with 127 and 113 percents respectively. Low direct costs adjusted identified with the two primary schools. Farragut Primary School was lowest when 1975-76 was taken alone and when 1974-75 and 1975-76 were averaged. After adjustment for inflation, this school showed a minus 4 percent in 1975-76 and a minus 7 percent when the last two years were averaged.

Indirect costs, which were essentially prorations to specific schools of district-wide costs, were found to be constant when the three-year average was compared to 1975-76 costs and to the average of costs in 1974-75 and 1975-76, as would be expected. These costs, when adjusted for inflation, showed a 22 percent increase in 1975-76 and a 20 percent increase when 1974-75 and 1975-76 were averaged. The difference of approximately 10 percent in increases between direct costs and indirect costs makes it possible to speculate that the Extended School Year Program could have been responsible to this extent for increased costs.

Attitudes Toward Year-Round Programming

Voters in the Farragut area expressed favorable attitudes toward ESY when sampled in November 1974. Eighty percent of registered voters responding to a poll conducted by mail believed that ESY could "improve education in Knox County" and that the program "should be offered to other parts of the county." Eighty-eight percent liked the idea of providing families with alternatives to the summer vacation period for their children. Ninety-five percent of the voters responding agreed that "While the Extended School Year may not reduce educational costs, it can provide for greater use of school buildings and relieve overcrowded schools."

Students in the ESY schools were, in general, favorably impressed with their educational opportunities under the new program. When student opinion was sampled in March 1975, 87 percent of the high school respondents, 70 percent of the middle school respondents, and two-thirds of the primary respondents liked having the chance to go to school during the summer if they wanted to do so. Almost 80 percent of the high school students felt that "having the opportunity to take off a quin other than the Summer Quin makes it easier for a student to find a job if he wants one." Fifty-five percent considered "the opportunity to seek employment at a time other than summer to be one of the biggest advantages of ESY."

Two-thirds of the primary level respondents said they were more interested in school than before ESY began; 39 percent of the middle school sample, and 33 percent of the secondary sample expressed a similar opinion. The new ESY curriculum was apparently preferred over the previous curriculum by two-thirds of the primary students, 55 percent of the middle school students, and 54 percent of the secondary students.

At all levels students who attended the Summer Quin expressed more favorable attitudes toward ESY than did those who were enrolled only during the traditional

school year. During the 1975 Summer Quin 85 percent of the students at all five schools said they liked the idea of having the schools in operation year-round, and were glad to be participating in the Summer Quin. Eighty percent hoped ESY would be operational during the summer of 1976.

By the end of March 1976, when another sample of student opinion was drawn at third, sixth, and tenth grade levels, the Knox County school board had accepted the superintendent's recommendation to terminate the ESY program, and the effect of this decision was apparent in student responses. Just 57 percent of all respondents said they felt the schools should be open year-round. The percentage of 1975 Summer Quin students responding positively to this item fell from 85 when it was asked in the summer to 70 in March. Sophomores expressed the highest level of commitment to year-round education: 72 percent said the schools should operate year-round, while only half of the third and sixth grade samples responded similarly.

Interest in continuing ESY through the 1976 Summer Quin was also greater at FH than in middle or primary schools: 29 percent of the FH sophomores said they 'would like to attend' a 1976 Summer Quin, while just 16 percent of the third graders and 17 percent of the sixth graders expressed a similar interest.

Apparently students and teachers were more comfortable with ESY as it became institutionalized. Seventy-one percent of the third graders, 75 percent of the sixth graders, and 57 percent of the sophomores said they liked school 'more this year than last year.' When asked if they liked 'the new lessons and learning activities that the teachers have been using since ESY began; 85 percent of the third graders, 77 percent of the sixth graders, and 67 percent of the sophomores said 'yes'. And 72 percent of the third graders, 78 percent of the sixth graders, and 67 percent of the tenth graders responding said their teachers seemed to like ESY.

More than three-fourths of parents responding to a questionnaire in March 1975 favored "the ESY plan for using Knox County Schools on a 12-month basis." Only one quarter would support a mandatory attendance plan, however. In order of preference, parents' reasons for approving of ESY included: having the opportunity to choose the time of year when one's children could be out of school; smaller classes during the Summer Quin, and the promise of smaller classes during the regular school year; year-round utilization of school facilities and personnel; and curriculum improvement.

Both student and parent enthusiasm for extending the school year was lessened by the administrative decisions which cut short the ESY trial. Use of the schools on a 12-month basis was favored by only 43 percent of third, sixth, and tenth grade parent respondents when they were surveyed in March 1976. Just 15 percent of the ESY parents expressed interest in having their children attend a 1976 Summer Quinmester if it were going to be available.

Approximately 40 percent of the parent respondents felt the three-year ESY trial should have been carried to its conclusion; but, surprisingly, 70 percent said they would favor reinstating an extended school year plan in a few years if the new facilities in the area failed to 'provide permanent relief from overcrowding.'

When asked why so few students had chosen to attend the two summer quinmesters, the responses of parents and students at all levels were remarkably similar. The reasons ranked first and second by all groups were:

(1) "Summer is the time for vacation from school; it's hard to change that habit and think of coming to school in the summer," and

(2) "Students miss too many summer activities (camp, swimming and other sports, family trips) if they attend school during the summer."

Interviews with principals and teachers at the ESY schools during the second year of the program strengthened the conclusion, based on data obtained

the previous year, that the professional staff generally approved of the ESY scheduling and curriculum, and were disappointed that the program would not be continued.

The responses of high school students indicated that they were somewhat more enthusiastic about having the opportunity to attend school during the summer than were primary and middle school students. However, students at all three levels expressed a high degree of approval of the year-round program; and ESY administrators felt that the program was accepted and functioning smoothly at all five participating schools. The administrators were not able to cite a distinct advantage or disadvantage for year-round operation at any of the three organizational levels.

Feasibility of Quinmester Plan with Attendance Optional

ESY administrators correctly anticipated an adverse reaction of a majority of parents to mandatory attendance for the quinmester plan. Consequently, no group of students was required to attend the Summer Quin, and very few chose to attend. Administrators hoped at least 25 percent of the total five-school enrollment would voluntarily take advantage of the opportunity to go to school in the summer. Thirteen percent actually enrolled during the 1974 Summer Quin and 11 percent attended the 1975 Summer Quin. Enrollment during the other four quins was not reduced by more than five percent, thus anticipated operational economies were not realized. When in March 1976 the Knox County Superintendent told the Board of Education that the property tax rate would have to be increased to provide funds for continued additional expenses of the Summer Quin, the Board assumed that the taxpayers would not approve, and voted to cancel the 1976 Summer Quin.

The Knox County experience with year-round education verified the findings of other systems that have tried it: a <u>voluntary</u> attendance plan will not

produce significant reductions in enrollment during the September-June school year because too few students elect the summer session. The tradition of summer as the time for vacation is simply too strong. Most people find it uncomfortable to be out of phase with the schedule of events, both in school and in the community, which is being pursued by the majority.

In March 1976 parents of third, sixth, and tenth grade students were given an opportunity to suggest how an extended school year might have been made to work in Knox County. The suggestions which were given are listed below in order by the frequency with which each was mentioned:

1) Assign students to segments of the year and make the attendance plan mandatory.

2) Adopt a different scheduling pattern such as the 45-15 plan.

3) Divide the summer between two attendance periods so that everyone would have part of the summer off.

4) Effectively promote the extended school year in the community through a public information and education program.

5) Use the summer session for enrichment, with courses in outdoor sports, art, crafts, music, foreign languages, etc.

C. CONCLUSIONS AND RECOMMENDATIONS

Knox County's Extended School Year Program had an excellent beginning. As two of its first planners, Martha Jean and Sam Bratton wrote in their Guide to Planning a Year Round School Program (1975), the process of establishing a year-round education program can be divided into five phases: awareness of need, feasibility study, project planning, experimentation, and institutionalization. Knox County administrators determined that there was an interest within the community in exploring year-round programming. Administrators, assisted by a 29-member committee of students, parents, teachers, principals, school board members, business persons and other community representatives, then conducted a two-year study of the feasibility of year-round school for Knox County.

Some year-round programs have been sold to local authorities on the basis of their potential for saving money and increasing student achievement scores. Knox County school personnel avoided this error and proposed instead to utilize year-round scheduling primarily as a vehicle for revamping the curriculum.

When ESEA Title III funding became available, teachers, principals, and supervisors virtually immersed themselves in the planning process for seven months.

Thus the ESY "experiment" began with the Summer Quinmester in June 1974, soundly based on extensive background research, and having as its principal objective curriculum improvement.

In March 1973 the Knox County school board voted to end the ESY experiment, to eliminate the third summer of the planned three-year trial. With such a solid foundation in the early stages, why did ESY fail to become institutionalized?

The answer to that question is complex; at least six factors seem to have played a part in the program's demise.

·First, the seven months planning period was much too short to permit working teachers, principals, and supervisors to institute a new schedule, revamp the entire curriculum for grades K-12, and prepare teachers to utilize the new instructional materials. At least a year was needed to complete such a mammoth undertaking.

·The limited planning time resulted in inadequate articulation between the curriculum followed in the first summer quin and that utilized during the other four quins, and this caused problems for students during the September-to-June school year.

·Insufficient time could also be blamed for the school system's failure to mount an intensive, on-going public information and education program for selling the community on the idea of summer attendance. Some of the teachers in ESY schools who had not participated in curriculum revision were not themselves sold on the program during its first months. Prior to the first summer quin several mass meetings were held to help publicize the summer session, school personnel spoke to community groups about the program, the news media carried various stories about program details, and some printed materials such as posters and brochures were distributed to parents and students. While ESY administrators said that an extensive effort must be made during Spring 1975 to convince parents and students of the benefits of attending the second summer quin, no such effort was made, and summer enrollment fell from 13 percent in 1974 to 11 percent in 1975. (The effect which additional public relations activities might have had on attendance is illustrated by the fact that one principal substantially increased summer enrollment at his school by mounting his own small publicity program for students prior to pre-registration for the 1975 Summer Quin.)

Knox County school administrators knew that without a mandated attendance plan too few students would elect summer attendance to permit (1) significant

enrollment decreases during other quins, or (2) cost savings. They expressed the hope, however, that at least 25 percent of the total student enrollment at the ESY schools could be attracted to the summer sessions. Without an extensive continuing public information and education program aimed at changing attitudes about summer attendance, Knox County administrators found that no more than 15 percent of the students were willing to break the tradition of summer as the time for vacation from school. School board members did not feel the additional expenditures associated with summer operation were justifiable for such a small proportion of students.

·Despite increased ACT scores in English and social studies which suggested that the new curriculum materials in these subject areas might have been particularly effective, there were no significant increases in academic achievement which could be attributed exclusively to the effects of ESY. The failure to produce spectacular gains in any area undoubtedly influenced the school board decision to drop ESY.

·Some reduction in overcrowding at the ESY schools was stated as one of the secondary purposes of the ESY Program. The small summer enrollments did not effect substantial reductions in class size later in the year. But in September 1976 two new schools opened on ESY campuses, and this development eased the crowding situation temporarily. It also relieved any pressure Knox County school board members may have felt to continue ESY for the purpose of alleviating overcrowding.

·In the Guide to Planning A Year Round School Program the authors offer the following advice to those considering year-round operations:

> If you are lucky enough to obtain external funding of some sort, think of it as a boost to help you get started and not as an everlasting source of operational funding. This is one point where a good program evaluation can be extremely helpful. If you have a super program and can prove it, your public will not allow that program to be terminated (Bratton, Bratton, and Latture, 1975, p. 26).

When external funding for ESY was terminated, so was the program. The evaluation process revealed a number of positive effects of the ESY program, but the results of that process were never used to convince school board members of program effectiveness.

In March 1976, 70 percent of a sample of ESY parents said they would favor reactivating an extended school year plan in a few years if new facilities in the area failed to 'provide permanent relief from overcrowding.' It is conceivable that ESY could be reinstated eventually because the program had several positive features:

- Though the overall impact was small, the availability of a summer session did reduce pupil-teacher ratios somewhat during the remainder of the school year.
- Both students and staff who participated in the summer quinmesters enjoyed the small classes and relaxed atmosphere, and morale was at its peak for the school year; discipline problems and vandalism virtually disappeared.
- The new curriculum associated with ESY was considered an improvement over the curriculum of past years by faculty and students. This contributed to the expression of a very positive attitude toward school by a majority of students the first year of ESY and an even more positive attitude during the second year. The attitudes of summer quin students were most positive of all. A majority of primary and middle school students perceived that instruction was being individualized with the new materials.
- The nine-week curriculum modules made it possible for students who failed one quinmester of work to repeat that segment immediately.
- Students needing remedial work, or seeking enrichment, could attend five quinmesters.
- Approximately half of the high school students considered the opportunity to seek employment at a time other than summer to be an important advantage of ESY scheduling.
- Families who wanted or needed to travel extensively at times other than summer were delighted to have the option of summer school attendance (A maximum of 10 percent of the total enrollment would fit into this classification.).
- More than 85 percent of a sample of voters in the ESY-affected community approved the concept of having schools in operation year-round.

The Knox County experience with year-round education suggests that any future extended school year planning, in Knox County or elsewhere, should give consideration to the following recommendations:

·The need and potential support for year-round school operation within the community should be very accurately assessed before any additional planning takes place.

·If an initial sample of community opinion indicates receptivity to the concept, an extensive public information and education program should be undertaken to convince parents and others in the community of the benefits of year-round operation, and to change the traditional perception of summer as the time for vacation from school. It is essential that community organizations such as churches, YM and YWCAs, Boy and Girl Scouts, and private recreational clubs be reached in this campaign because the traditional schedule of community social and cultural events needs to be modified so that students attending school during the summer do not feel as if they are totally out of phase with the community calendar.

·The reasons for adopting an extended school year should be clearly identified for the school board in particular and the community in general. If the school system must make maximum use of existing facilities, reduce overcrowding, and not increase expenditures, then a mandatory attendance plan must be adopted. No voluntary plan will result in the equitable distribution of students in attendance segments throughout the year which is required if these objectives are to be realized.

To summarize the foregoing recommendations, the recorded experience of school systems experimenting with year-round education is presently sufficient to permit other systems to base their own new year-round programs on a set of reasonable expectations. Specifically, the data indicate that in no community should one expect a majority of parents to be willing to send their children to a summer segment of the school year, at least initially. A selling job must be done throughout the community to promote the idea that school attendance during the

summer can have benefits -- for students, for teachers, for the school system. In addition, it is apparent from the accumulated experience that only with a very carefully managed mandatory attendance plan can a school system realize financial savings.

If school board members and administrators have realistic expectations at the outset, their year-round program should have a much better chance of winning approval for continuation beyond the trial phase than a program based on unwarranted hopes.

·Curriculum improvement should be a primary objective of any extended year program. If students are to be allowed to enter and leave the system at will, the curriculum must be organized to permit them to do this without academic penalty. Non-sequential nine-week modules for each course were developed to answer this need in the ESY Program. Individualization should be promoted, and attention should be given to provisions for remediation and enrichment.

Once the curriculum is established, faculty members should coordinate their planning so that students can, in actuality, leave and re-enter the system without feeling that they have missed important concepts or that they must repeat experiences they have mastered previously.

·The public information and education effort must be continuous -- not a one-time thrust at the beginning of the program. The community must be kept aware of the benefits of year-round programming. Periodic progress reports provide excellent public relations materials. The need to promote the program exists whether attendance is mandatory or optional.

The Knox County experience with year-round programming has indicated that if the time should ever come when a school system can afford to pursue quality education for its students at a modest cost increase, a voluntary plan for extending the school year is an option which should be explored. Such a program

can provide students and their parents with, in some cases, a much needed opportunity to choose a time other than summer for vacation from school. The reduced pupil/teacher ratios which are made possible by a quinmester plan such as the one used by Knox County permit individualization of instruction to an extent not possible in a crowded classroom. Finally, students have year-round opportunities for remediation or enrichment as needed or desired.

PROJECT DIRECTOR'S COMMENTARY

Samuel E. Bratton, Jr.

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A final statement from the project director is important because he has had the opportunity to gain a unique perspective. In this case, however, there will be no sharp contradictions or startling revelations to set against the evaluative data and commentary found elsewhere in this document. The absence of sensationalism makes the content no less important, however, for the serious reader.

It has been six years since the project was first conceived for Knox County. It was subsequently planned, implemented for two years, and discontinued six months ago. There were some positive and lasting benefits which have affected not only the persons directly involved with the extended school year, but others as well.

The most tangible result, and probably the most significant as well, was the development of several hundred curriculum guides, (which are still being written, revised, and implemented county-wide), for grades K-12 in all subject areas. Normally, four guides or modules cover four nine-week terms or one traditional year's work. Descriptions of the content and intended use of these modules can be found elsewhere, and need not be repeated here.

A less tangible but no less significant result, in this writer's judgment, was the experience of the curriculum redevelopment process. Of course, this experience was felt in varying degrees by system personnel according to their personal involvement. It follows that the greatest benefits probably accrued to a relatively small number of people. At the apex of the curriculum redevelopment task force pyramid was the four-member curriculum steering committee, but from them, involvement in the curriculum redevelopment was diffused to several hundred persons.

The benefits derived included experience with techniques of research and group process skills, and a kind of renewal that comes from making working contact with new and interesting people. In short, many of the Knox County supervisors, administrators, and teachers grew professionally as a result of their involvement in the curriculum redevelopment process.

Another benefit was the lesson that was experienced on the importance of broad-based involvement; i.e., the more individuals who are significantly involved, the greater the chances that a program will succeed. Lessons were learned both ways: the benefits of involvement were seen first hand; and, in at least one instance, the consequences of a lack of involvement were endured. In sum, the project had produced "textbook illustrations" of the importance of psychological investment for program success.

Benefits accrued to individuals who were directly involved in one or both of the summer term programs. Students were able to take additional quinmesters or terms of work. They were able to repeat or make up work. (Since quinmester grades stood alone, students got four fresh starts each year in each subject.) They were able to take extended trips at any time of the year. Seniors could graduate early and, for example, start college in the summer without losing the benefit of a long (spring) vacation after completing high school around the first of April. Teachers were able to increase their annual salary by about twenty percent while continuing to do the work for which they were professionally trained. Everyone enjoyed the lower pupil-teacher ratio and freedom from the pressures and problems generated by the density of the regular total school population.

The extended school year program served as a catalyst or stimulus for some lasting side effects or second order consequences. A great deal of recognition was brought to the Knox County School System through dissemination

of printed information and participation in local, regional, state, and national year-round school meetings. Knox County was the only school district in the State to actually implement a year-round school program.

System-wide instructional goals and objectives were completed and published under one cover for the first time. All module objectives were keyed to the system-wide goals.

Air conditioning was installed in the two buildings in the pilot area which were not already air conditioned, much to the delight of students and teachers who had suffered through numerous early and late summer heat waves.

Printing procedures at the Central Office were significantly improved with the installation of a dry process copying-duplicating-sorting machine which was retained after the conclusion of the extended school year project by switching its funding to local sources.

Advice to other school systems concerning the planning and implementing of a year-round program can be found in another document produced jointly by the Knox County Schools and the State Department of Education: Guide to Planning a Year-Round School Program (Bratton, Bratton, and Latture, May 1975). Single copies are available free of charge while they last from Knox County or the State Department of Education. Without a great deal of elaboration, a few of the important points have been outlined below:

Since there are many different reasons for considering a year-round school program, a first step is to insure that your local needs are documented and that an extended school year program appears to be a logical strategy for meeting those needs. Year-round school programming has great potential for instructional improvement, but it does not come automatically. It is, perhaps, the greatest challenge to be faced. Remember too that broad involvement of community and professional personnel is important from the beginning to the end.

Broadening the base of input and decision-making is more difficult to manage, of course, but the payoff is worth the trouble.

Public relations is another important consideration. Whether it is handled by existing personnel, or contracted, is a school district's strategy option. However, there can be no option to ignore public relations if a successful program is desired. Adequate human and financial resources are another requirement. A careful evaluation of available resources must be weighed against a district's special needs, aspirations, and problem complexity.

The question of costs is always foremost in the thinking of most superintendents. Unfortunately, it is possible to make only a few generalizations about year-round school costs. School financing is extremely complex, and a year-round program will make it more so. Some systems have saved money, some have broken even, and some have spent more money. The Knox County program was discontinued because the Superintendent felt that it was too expensive, primarily a result of operational costs for instruction. There were not enough summer term volunteers to make a significant dent in the fall, winter and spring term enrollments which, in turn, would have justified a reduction of instructional staff in those four regular terms.

One generalization that is reasonably safe to make is that a year-round program based on voluntary participation will require more money to operate than a traditional program. Another safe generalization is that any school system may expect to have some one-time gearing up costs which are necessary for getting started but which would not be sustained thereafter. This will hold true for either voluntary or mandatory plans. Where operational costs are concerned, though, the patent fact is that a mandatory plan is less expensive to operate and easier to administer than a voluntary plan. The other side of the coin is that it is also more difficult to sell the public.

Sometimes mandatory plans have succeeded as the least undesirable alternative available. Probably, the 45-15 plan has been the most successful mandatory plan, at least for elementary schools.

In balance, it is this writer's opinion that Knox County benefited from its extended school year experience. Now, with the advantage of hindsight, every effort should have been made to extend the pilot project through a third year, and the public relations program should have been intensified during the second year instead of being relaxed. But even though the program was discontinued, the benefits already enumerated were significant. Moreover, a year-round program could be reinstated in this school system with relative ease administratively.

After having had this experience and even though the program was discontinued, it is this project director's opinion that a year-round public school program is sensible and logical. It has long been accepted as a way of life in higher education. The original reason for long summer vacations, the need for cheap farm labor, is of little importance today. Of course, other summer activities have, over time, filled that vacuum, and there are some very real problems to be faced. Traditionalism or the resistance to change is an inescapable factor, Nevertheless, there are numerous long-term advantages to a good year-round program, while the disadvantages tend to be thorny but not insoluble problems.

REFERENCES

REFERENCES

Adams, Velma A. "The Extended School Year: A Status Report," School Management, 14:13-19, June 1970.

Banta, Trudy W. Evaluation of the Knox County Extended School Year Program - 1974-75. Knoxville, University of Tennessee, Bureau of Educational Research and Service, 1975. Pp. 227.

Banta, Trudy W., et. al. Evaluation of the Knox County Extended School Year Program - 1975-76. Knoxville, University of Tennessee, Bureau of Educational Research and Service, 1976. Pp. 199.

Bratton, M. J., S. Bratton, and V. Latture. Guide to Planning a Year-Round School Program. Knoxville, Knox County Schools, 1975.

Education U.S.A. "As California Goes, So Goes Year-Round Education," 18:137 and 139, February 9, 1976.

Education U.S.A. "Pupils Learn No More--Or Less--In Year-Round Schools," 17:219, May 19, 1975.

Knox County Metropolitan Planning Commission. "West Knox Data Base." Knoxville, MPC, 1974.

Knox County Metropolitan Planning Commission. "West Knox Plan." Knoxville, MPC, 1974.

National Education Association. Division of Instruction and Professional Development. Year-Round Schools. Washington, D.C., NEA, May 1974. Pp. 64. ED 095632.

Specific sources within National Education Association's Year Round Schools:

Alvary, Ronald A.F. "A Look at the Year-Round School," American Education, 9:back cover, January 1973.

Callahan, John J. and others. Year-Round Schools and Urban School Finance. Charlottesville, University of Virginia, Bureau of Educational Research, 1973. Pp. 25.

Howe, P.H. "Year-Round School Makes Good Business Sense," American School Board Journal, 160:6-48, February 1973.

McGraw, Pat. "Junior Doesn't Have to Bale Hay Anymore," Compact, 7:10-12, November/December 1973.

Punke, Harold H. "Accountability and the Quarter System," Bulletin of National Association of Secondary School Principals, 57:57-64, January 1973.

Nygaard, Debra D. Evaluation of Year-Round School Programs. An ERS Research Brief. Washington, D.C., Educational Research Service, 1974. Pp. 43. ED 087092.

Rice, Paul D., Johannes Olsen, David Parks, and D.E. Parks. Year-Round Schools: Models and Issues. Blacksburg, Virginia Polytechnic Institute and State University, National Council for Year-Round Education, May 1975. Pp. 171.

Ross, Doris M. A Legislator's Guide to Year-Round Schools. A Research Brief. Denver, Education Commission of the States, Department of Research Information Services, January 1975. Pp. 50. ED 101440.

Thomas, George Isaiah. Administrator's Guide to the Year-Round School. West Nyack, New York, Parker Publishing Company, Inc., 1973. Pp. 276.

Univer, Irving O. "Can Year-Round Schools Save Money?" American School and University, May 1976, 34-35.